

APPENDIX A. Local Hazard Mitigation Planning Teams

Merrimack Valley Region Multi-Hazard Mitigation Planning Teams	
AMESBURY	
LHMPT Member	Position/ Affiliation
Robert Serino*	Deputy Chief, City of Amesbury
James Nolan*	Fire Chief, City of Amesbury
Adam Krans	Community Development and Housing Manager, City of Amesbury
Ann Marie Casey	Chief of Staff, City of Amesbury
Charles Sciacca	Police Sergeant, City of Amesbury
Craig Bailey	Chief of Police, City of Amesbury
David Mather	Deputy Fire Chief, City of Amesbury
David Olson	Emergency Management Deputy Director, City of Amesbury
Deb Ketchen	Health Inspector, City of Amesbury
Doreen Arnfield	Council on Aging, City of Amesbury
Elizabeth McAndrews	Superintendent of Schools, City of Amesbury
James Wilson	Building Inspector, City of Amesbury
Jimmy Olsen	Assistant Director of Recreation, City of Amesbury
Joseph Buckley	Director of Public Works, City of Amesbury
Kassandra Pearl	Conservation Agent, City of Amesbury
Kevin Mulrenin	Police Sergeant, City of Amesbury
Lauren Blatchford	Deputy Chief of Police, City of Amesbury
Nick Cracknell	Director of the Office of Community and Economic Dev., City of Amesbury
Nipun Jain	Director of Planning, City of Amesbury
Rebecca Frey	Community Development Coordinator, City of Amesbury
Sheila Beach	Executive Director, Amesbury Chamber of Commerce
Vinny Tirone	Director of Inspectional Services, City of Amesbury
BOXFORD	
Chris Olbrot*	Dept. of Public Works Superintendent, Town of Boxford
Brian Gieger	Fire Chief, Town of Boxford
James Riter	Police Chief, Town of Boxford
Matthew Coogan	Town Administrator, Town of Boxford
Peter Delaney	Building Inspector, Town of Boxford
Robert Hazelwood	Emergency Management Director, Town of Boxford
Ross Povenmire	Planning Dept./Conservation Dept. Director, Town of Boxford

Merrimack Valley Region Multi-Hazard Mitigation Planning Teams

GROVELAND

LHMPT Member	Position/ Affiliation
Rebecca Oldham*	Town Administrator, Town of Groveland
Annie Schindler*	Town Planner & Conservation Agent, Town of Groveland
Colin Stokes	Water & Sewer Dept. Superintendent, Town of Groveland
Jeffrey Gillen	Chief of Police, Town of Groveland
Kevin Snow	General Manager Groveland Municipal Light Dept., Town of Groveland
Mike Dempsey	Conservation Commission Chair, Town of Groveland
Renny Carroll	Highway Superintendent, Town of Groveland
Robert Valentine	Fire Chief, Town of Groveland
Sam Joslin	Building Commissioner, Town of Groveland
Stephen Sargent	Emergency Management Director, Town of Groveland

HAVERHILL

Robert Pistone*	Chief of Police, City of Haverhill
Adam Durkee*	Deputy Director of Emergency Management, City of Haverhill
Andrew Herlihy	Community Development Director, City of Haverhill
Christine Lindberg	Chief of Staff, City of Haverhill
John Pettis	City Engineer, City of Haverhill
Margaret Marotta	Superintendent of Schools, City of Haverhill
Michael Arpino	Highway Superintendent, City of Haverhill
Richard MacDonald	Inspectional Services Director, City of Haverhill
Robert Moore	Conservation Agent, City of Haverhill
Robert O'Brien	Fire Chief, City of Haverhill
Robert Ward	Department of Public Works Director, City of Haverhill
William Pillsbury	Community Development Director, City of Haverhill

LAWRENCE

Dan McCarthy*	Land Use Planner/ Conservation Agent, City of Lawrence
Adderly Gonzalez	Recreation Coordinator, City of Lawrence
Alexcy Vega	Chair and Chief Assessor, City of Lawrence
Awilda Pimentel	Community Development Director, City of Lawrence
Brian Moriarty	Fire Chief, City of Lawrence
Roy Vasque	Police Chief, City of Lawrence
Francisco Urena	Airport Manager, Lawrence Municipal Airport

Merrimack Valley Region Multi-Hazard Mitigation Planning Teams

LAWRENCE (continued)

LHMPT Member	Position/ Affiliation
Jorge Jaime	Public Works Director, City of Lawrence
Kenny Lamarche	Economic Development Project Officer II, City of Lawrence
Marc LaPlante	City Council President, City of Lawrence
Peter Blanchette	Building Commissioner, City of Lawrence
Tennis Lilly	Climate Resiliency Program Manager, Groundwork Lawrence & Conservation Commission Chairman, City of Lawrence
Timothy Houten	First Assistant City Attorney, City of Lawrence
William Hale	Water Commissioner, City of Lawrence
Wismelda Perez	Building Inspector, City of Lawrence

METHUEN

Joseph Cosgrove*	Environmental Planner/ Energy Manager, City of Methuen
Bruce Stella	Directory of Facilities, Methuen Public School District
Felix Garcia	Department of Public Works Deputy Director, City of Methuen
Joseph Giarrusso	Conservation Officer, City of Methuen
Kelly Townsend	Pandemic Recovery and Mitigation Coordinator, City of Methuen
Luis Santiago	Chief Information Officer, City of Methuen
Pat Bower	Public Works Director, City of Methuen
Randy Haggar	Deputy Police Chief and Emergency Management Director, City of Methuen
Sandy Almonte	ADA/DEI Coordinator, City of Methuen
Stephen Gagnon	Engineering Department Administrator, City of Methuen
Tim Sheehy	Fire Chief, City of Methuen
Tom Lannan	Methuen Water Treatment Plant Superintendent, City of Methuen

NEWBURY

Martha Taylor*	Planning Director, Town of Newbury
David Evans	Fire Chief, Town of Newbury
Deb Rogers	Health Director, Town of Newbury
Doug Janvrin, Jr.	Former Fire Chief, Town of Newbury
James Sarette	Department of Public Works Director, Town of Newbury
Kristen Grubbs	Assistant Planner, Town of Newbury
Patty Fisher	Police Chief/Emergency Management Director, Town of Newbury
Peter Binette	Building Commissioner, Town of Newbury

Merrimack Valley Region Multi-Hazard Mitigation Planning Teams

NEWBURY (continued)

LHMPT Member	Position/ Affiliation
Samantha Holt	Former Conservation Agent, Town of Newbury
Sean Young	Conservation Agent, Town of Newbury
Tracy Blais	Town Administrator, Town of Newbury

ROWLEY

Mark Emery*	Fire Chief/ Emergency Management Director, Town of Rowley
Brent Baeslack	Conservation Agent, Town of Rowley
Deborah Eagan	Town Administrator, Town of Rowley
Frank Marchegiani	Health Director, Town of Rowley
James Pike	Building Inspector, Town of Rowley
Kirk Baker	Town Planner, Town of Rowley
Patrick Snow	Highway Surveyor, Town of Rowley
Scott Dumas	Police Chief, Town of Rowley

SALISBURY

Lisa Pearson*	Planning Director, Town of Salisbury
Adriane Marchand	Conservation Agent, Town of Salisbury
Danny Ruiz	Assistant Planner, Town of Salisbury
Jamie Tuccolo	Department of Public Works Director, Town of Salisbury
Michael Colburn	Board of Selectman, Town of Salisbury
Scott Carrigan	Emergency Mgmt Director and Fire Chief, Town of Salisbury
Scott Vandewalle	Building Inspector, Town of Salisbury
Tom Fowler	Police Chief, Town of Salisbury

WEST NEWBURY

Christine Wallace*	Department of Public Works Project Manager, Town of West Newbury
Angus Jennings	Town Manager, Town of West Newbury
Butch Hills	Highway Superintendent, Town of West Newbury
Christian Kuhn	Assessor, Town of West Newbury
Katelyn Barker	Department of Public Works Business Manager, Town of West Newbury
Mark Marlowe	Water Superintendent, Town of West Newbury
Michelle Greene	Conservation Agent, Town of West Newbury
Mike Dwyer	Police Chief, Fire Chief, Emergency Management Director, Town of West Newbury

Merrimack Valley Region Multi-Hazard Mitigation Planning Teams

WEST NEWBURY (continued)

LHMPT Member	Position/ Affiliation
Paul Sevigny	Health Agent, Town of West Newbury
Rick Parker	Select Board, Town of West Newbury
Sam Joslin	Building Inspector, Town of West Newbury
Sue Brown	Town Planner, Town of West Newbury

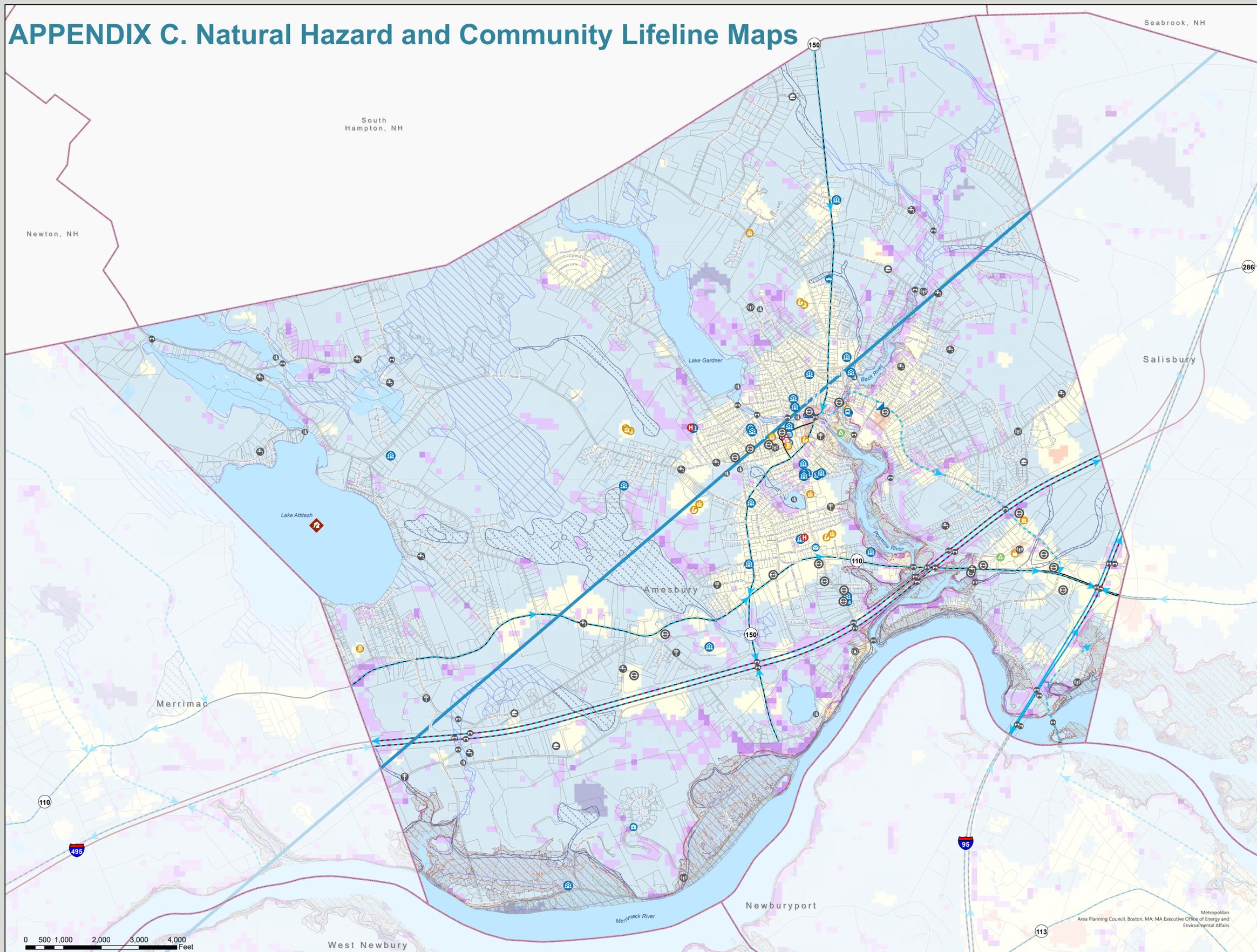
APPENDIX C. Natural Hazard and Community Lifeline Maps



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Merrimack Valley Multi-Hazard Mitigation Plan 2024

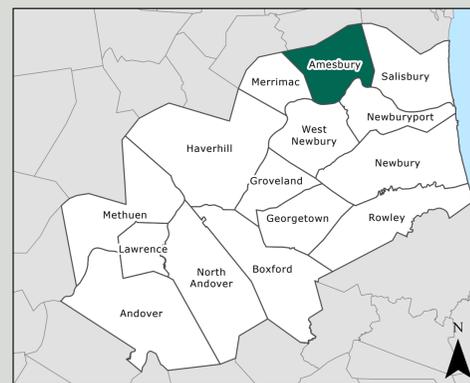
AMESBURY, MA Current Hazard Conditions



Legend

Land Surface Temp Variation (F above norm)	Tornado Tracks
0.01 - 0.2	Landslides
0.2 - 0.4	High Susceptibility and Incidence
0.4 - 0.6	FEMA Floodplain
0.6 - 0.8	100 Year Floodplain
0.8 - 0.99	500 Year Floodplain
Earthquakes	Hurricane Surge Inundation
Tornadoes	Category 1
Hurricane Tracks	Category 2
Hurricane (Cat. 3)	Category 3
Hurricane (Cat. 2)	Category 4
Hurricane (Cat. 1)	Slope Stability
Tropical Storm	Unstable
Tropical Depression	Moderately Unstable
Fault Lines	Low Stability

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

Preparation of this Plan was funded by grant # HMGPP 1895-45 from the Massachusetts Emergency Management Agency (MEMA) in cooperation with the Department of Homeland Security-Federal Emergency Management Agency (FEMA). Matching funds were provided by MVPC.

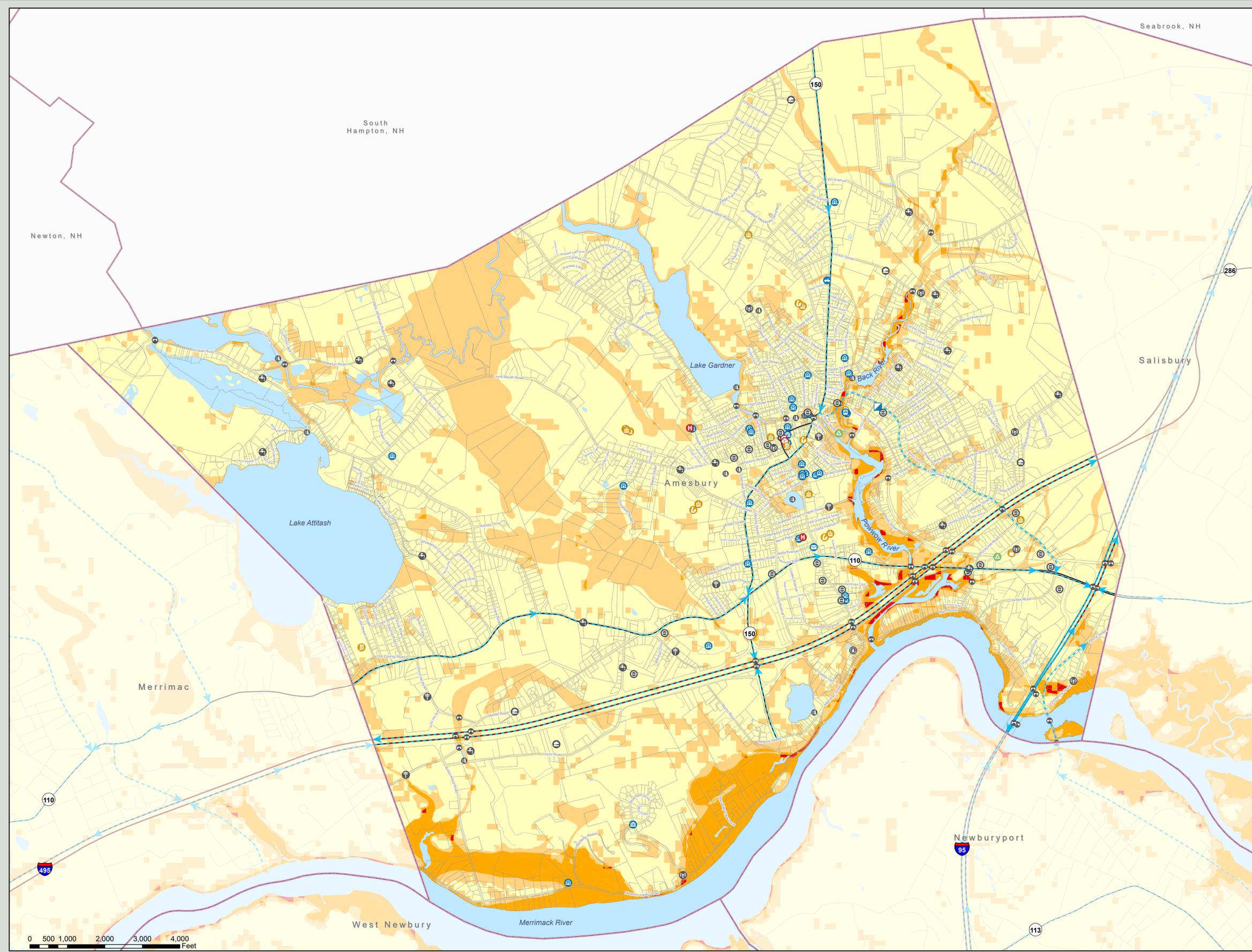
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AMESBURY, MA Composite Hazard Conditions

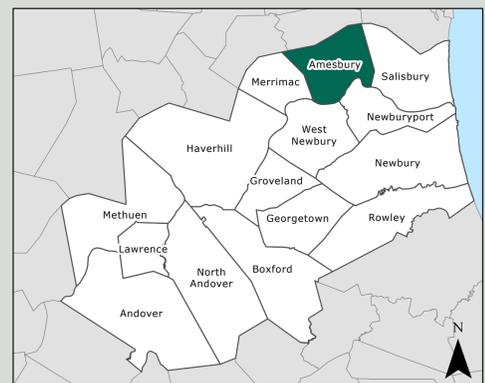


Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
 Regionally Experienced Hazards
 Landslide Susceptibility and Incidence
 FEMA Flood Insurance Rate Maps
 Hurricane Surge Inundation Zones
 Slope Stability

Regionwide Hazard Conditions
 100 Year Wind Speed: 110+ mph
 Average Annual Snowfall: 48.1-72.0 in
 Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

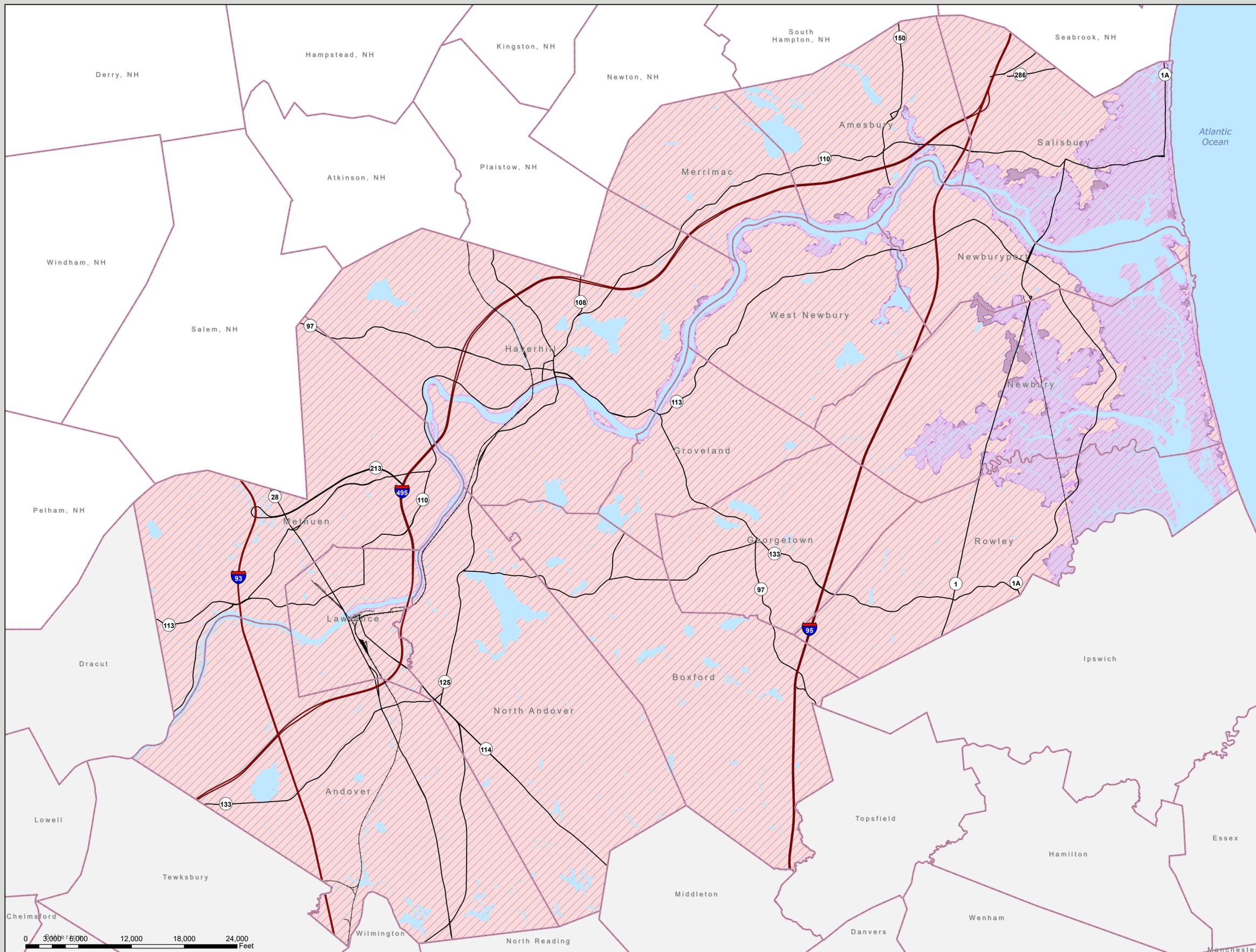
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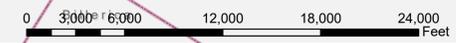
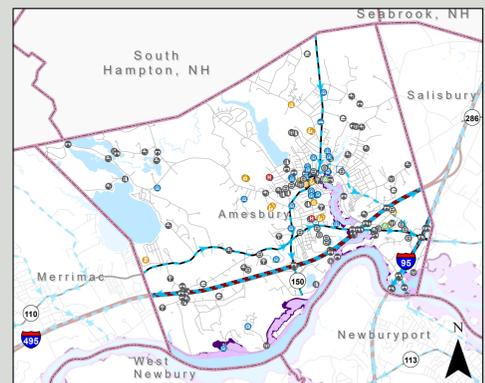
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
100 Year Storm Percent Exceedance Probability	49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%)	Interstate
10.5-16.5 days	Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days

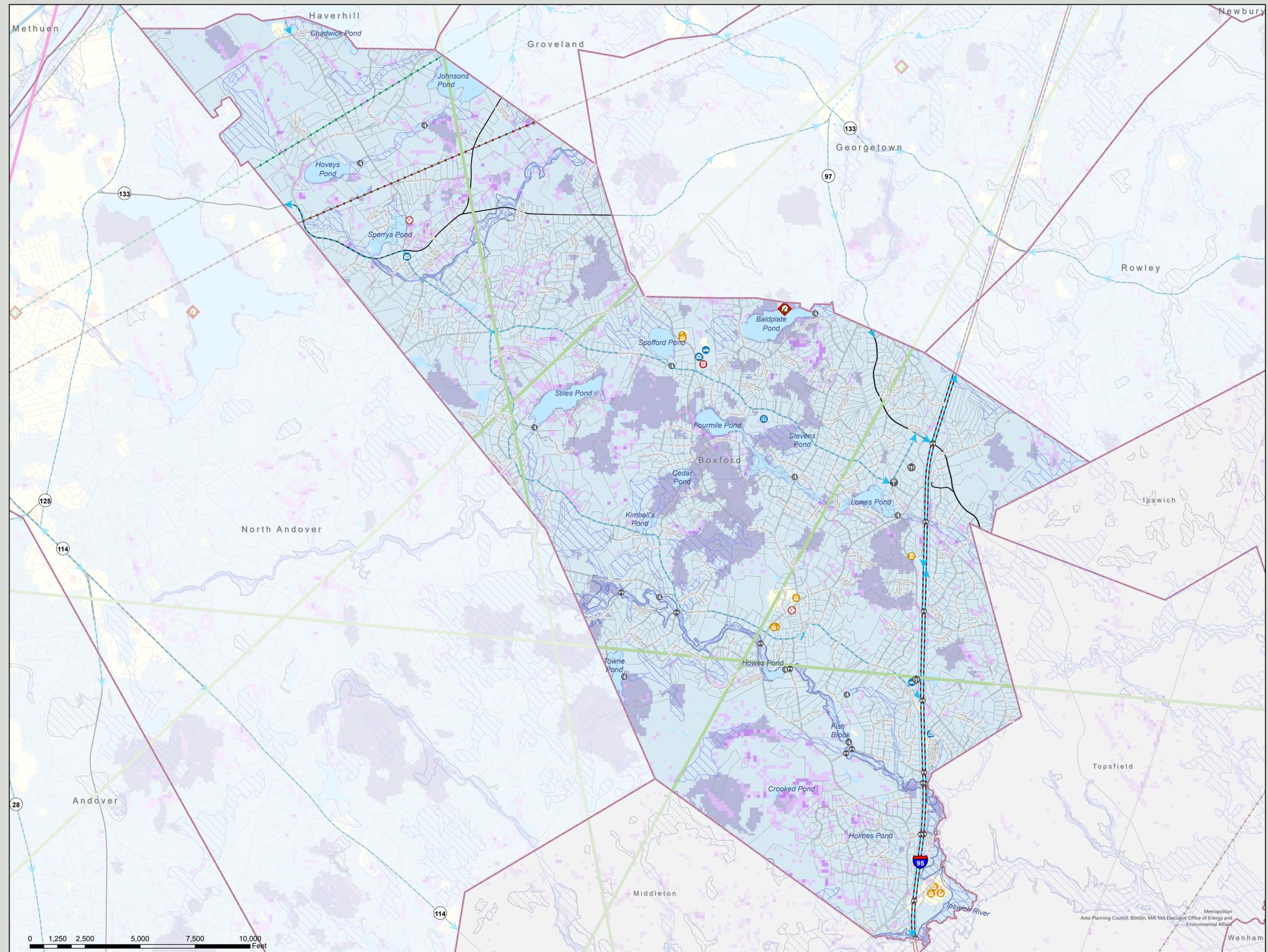


Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Prison | Solid Waste Disposal | Transportation - Bus Hub | Bridges |
| College/School | E911 Dispatch | Hospital | Other | Recreation Resources | Special Population Housing | Transportation - Train Hub | Dams |
| DPW | Emergency Ops Center | Housing Location | Police | Sewage Pump Station | Telecommunication Tower | Waste Water Treatment Plant | Evacuation Routes |
| Elderly Housing | Emergency Shelter | Library | Post Office | Shopping Center | Transportation - Air Hub | Water System Resources | |

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Merrimack Valley

Multi-Hazard Mitigation Plan

2024

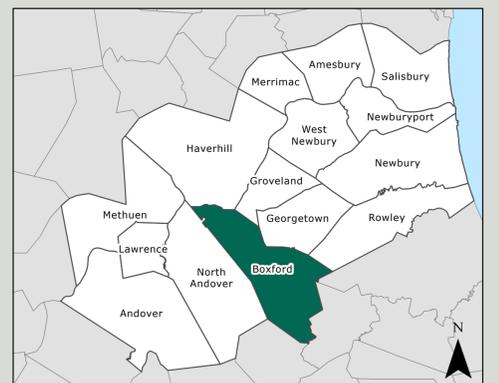
BOXFORD, MA

Current Hazard Conditions

Legend

Land Surface Temp Variation (+/-)	Tornado Tracks
0.01 - 0.2	Landslides
0.2 - 0.4	High Susceptibility and Incidence
0.4 - 0.6	Slope Stability
0.6 - 0.8	Unstable
0.8 - 0.99	Moderately Unstable
Earthquakes	Low Stability
Tornadoes	FEMA Floodplain
Hurricane Tracks	100 Year Floodplain
Hurricane (Cat. 3)	500 Year Floodplain
Hurricane (Cat. 2)	Hurricane Surge Inundation
Hurricane (Cat. 1)	Category 1
Tropical Storm	Category 2
Tropical Depression	Category 3
Fault Lines	Category 4

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

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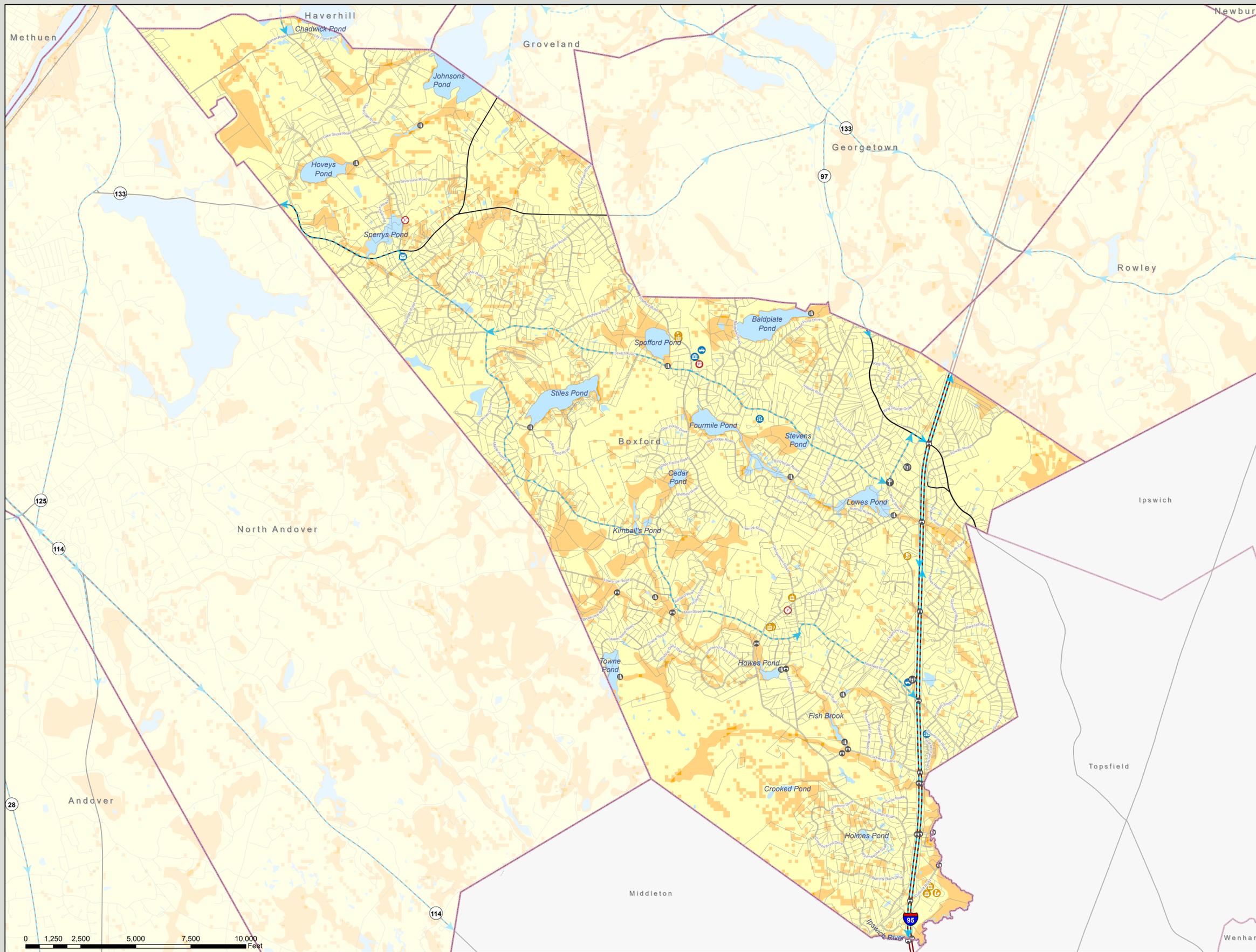
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BOXFORD, MA Composite Hazard Conditions

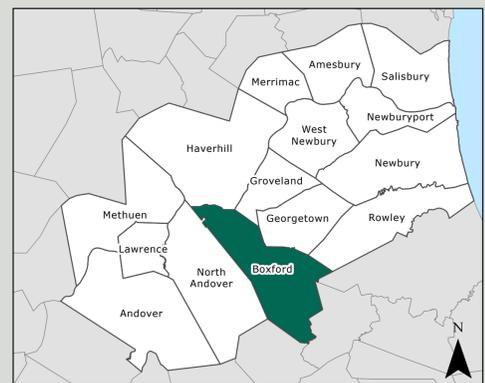


Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
Regionally Experienced Hazards
Landslide Susceptibility and Incidence
FEMA Flood Insurance Rate Maps
Hurricane Surge Inundation Zones
Slope Stability

Regionwide Hazard Conditions
100 Year Wind Speed: 110+ mph
Average Annual Snowfall: 48.1-72.0 in
Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
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Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

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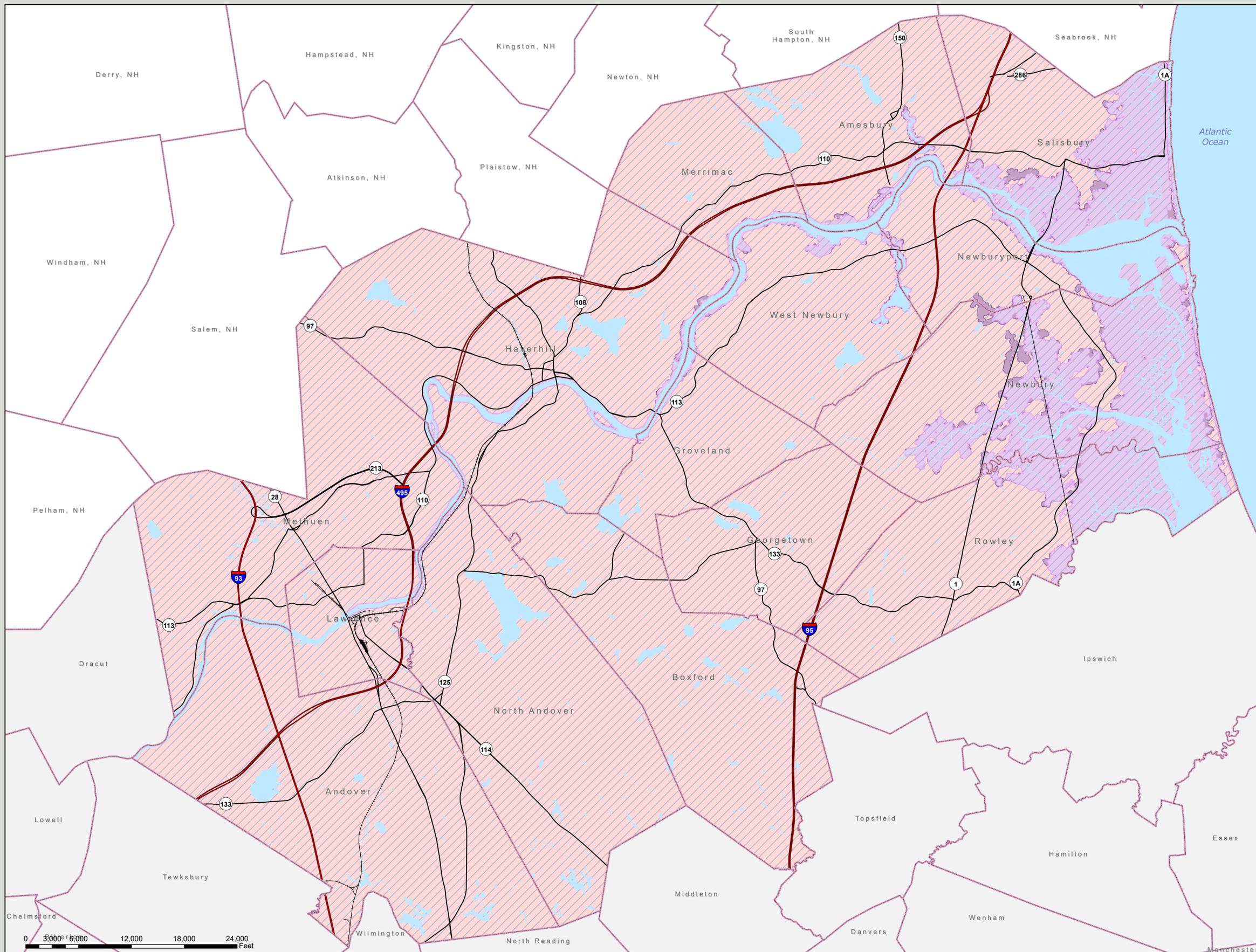
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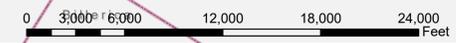
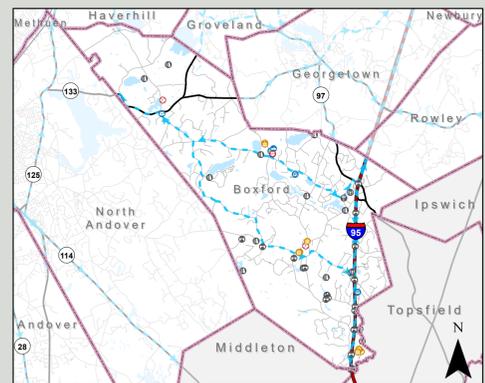
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
Light Purple: 100 Year Storm Percent Exceedance Probability	Diagonal Lines: 49.3 in
Dark Purple: 1,000 Year Storm Percent Exceedance Probability	Red Outline: Municipal Boundary
Light Red: Projected Days Above 90F (+23.5-94.1%)	Thick Red Line: Interstate
Light Red: 10.5-16.5 days	Thin Black Line: Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
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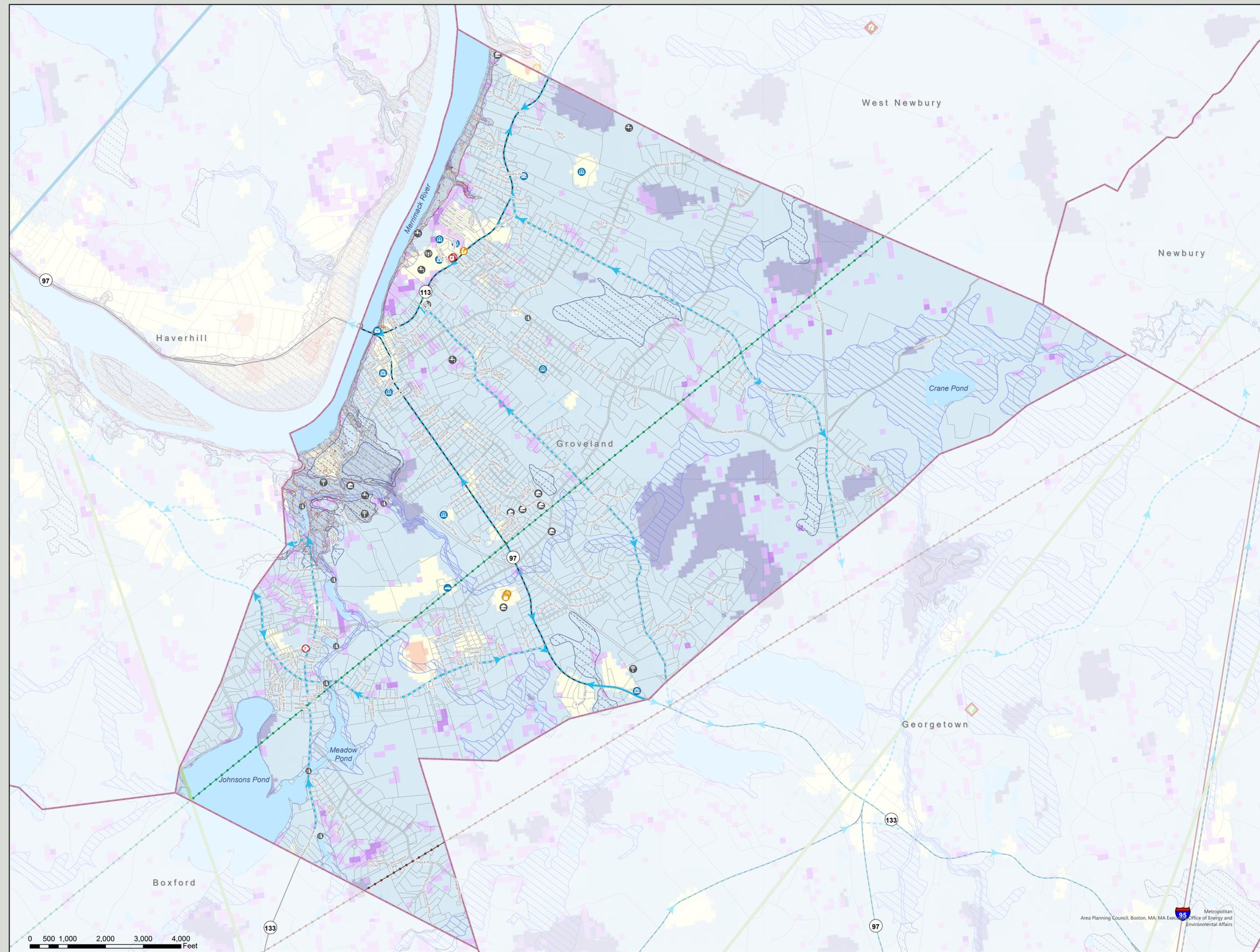
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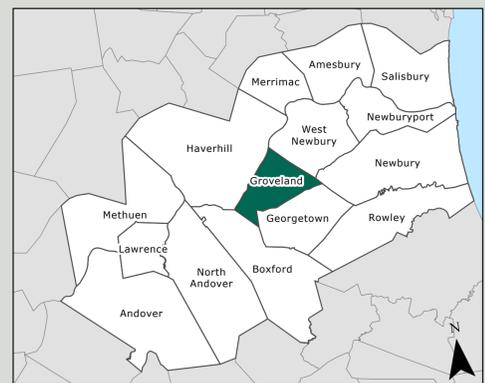
GROVELAND, MA Current Hazard Conditions



Legend

Land Surface Temp Variation (+/-)	Tornado Tracks
0.01- 0.2	Landslides
0.2 - 0.4	High Susceptibility and Incidence
0.4 - 0.6	Slope Stability
0.6 - 0.8	Unstable
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Hurricane Tracks	Category 1
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Tropical Storm	FEMA Floodplain
Tropical Depression	100 Year Floodplain
Fault Lines	500 Year Floodplain

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Area Planning Council, Boston, MA/ MA Executive Office of Energy and Environmental Affairs

Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
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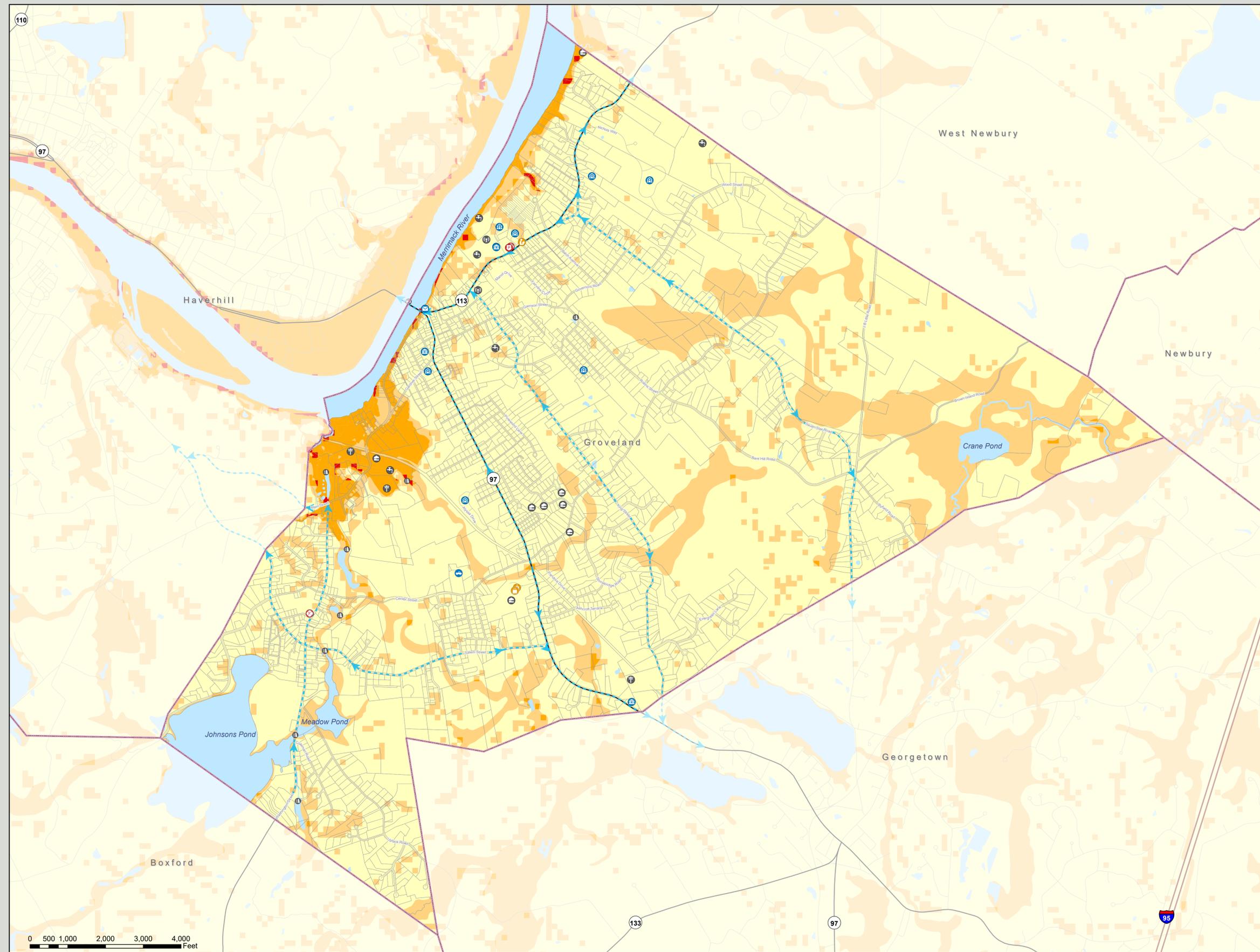
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GROVELAND, MA Composite Hazard Conditions

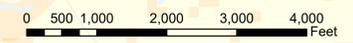
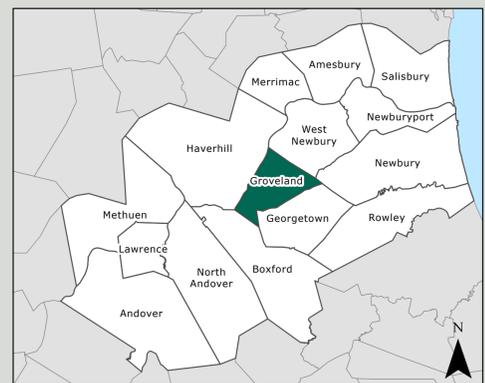


Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
 Regionally Experienced Hazards
 Landslide Susceptibility and Incidence
 FEMA Flood Insurance Rate Maps
 Hurricane Surge Inundation Zones
 Slope Stability

Regionwide Hazard Conditions
 100 Year Wind Speed: 110+ mph
 Average Annual Snowfall: 48.1-72.0 in
 Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

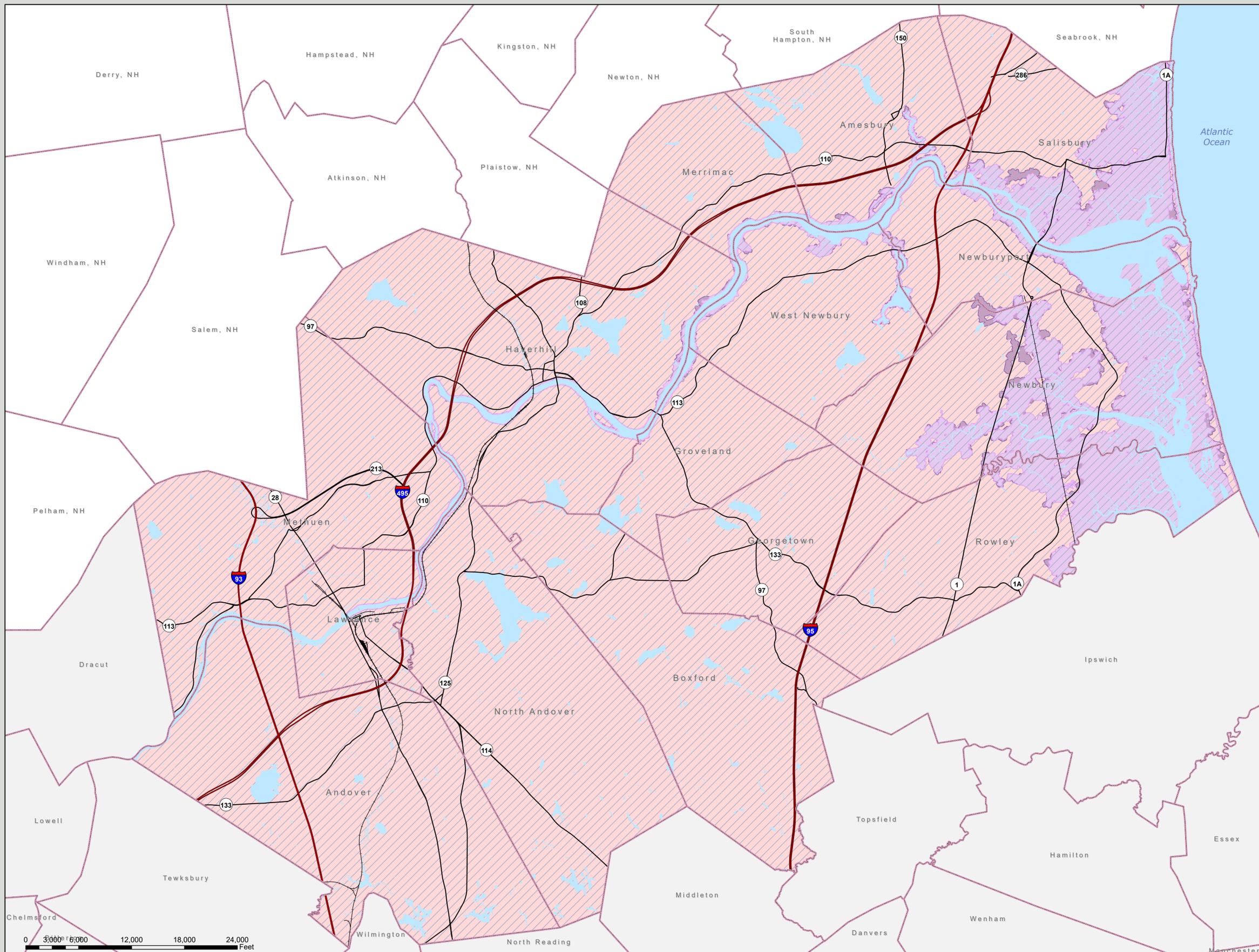
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

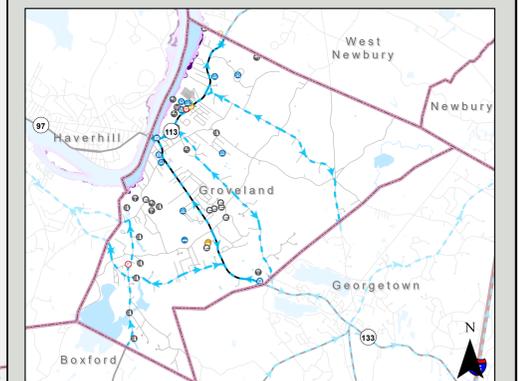
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model 100 Year Storm Percent Exceedance Probability	Projected Average Precipitation (+8.5%) 49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%) 10.5-16.5 days	Interstate
	Major Road

Current Regional Baselines*
Average Annual Precipitation: 45.4 in
Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Prison | Solid Waste Disposal | Transportation - Bus Hub | Bridges |
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| DPW | Emergency Ops Center | Housing Location | Police | Sewage Pump Station | Telecommunication Tower | Waste Water Treatment Plant | Evacuation Routes |
| Elderly Housing | Emergency Shelter | Library | Post Office | Shopping Center | Transportation - Air Hub | Water System Resources | |

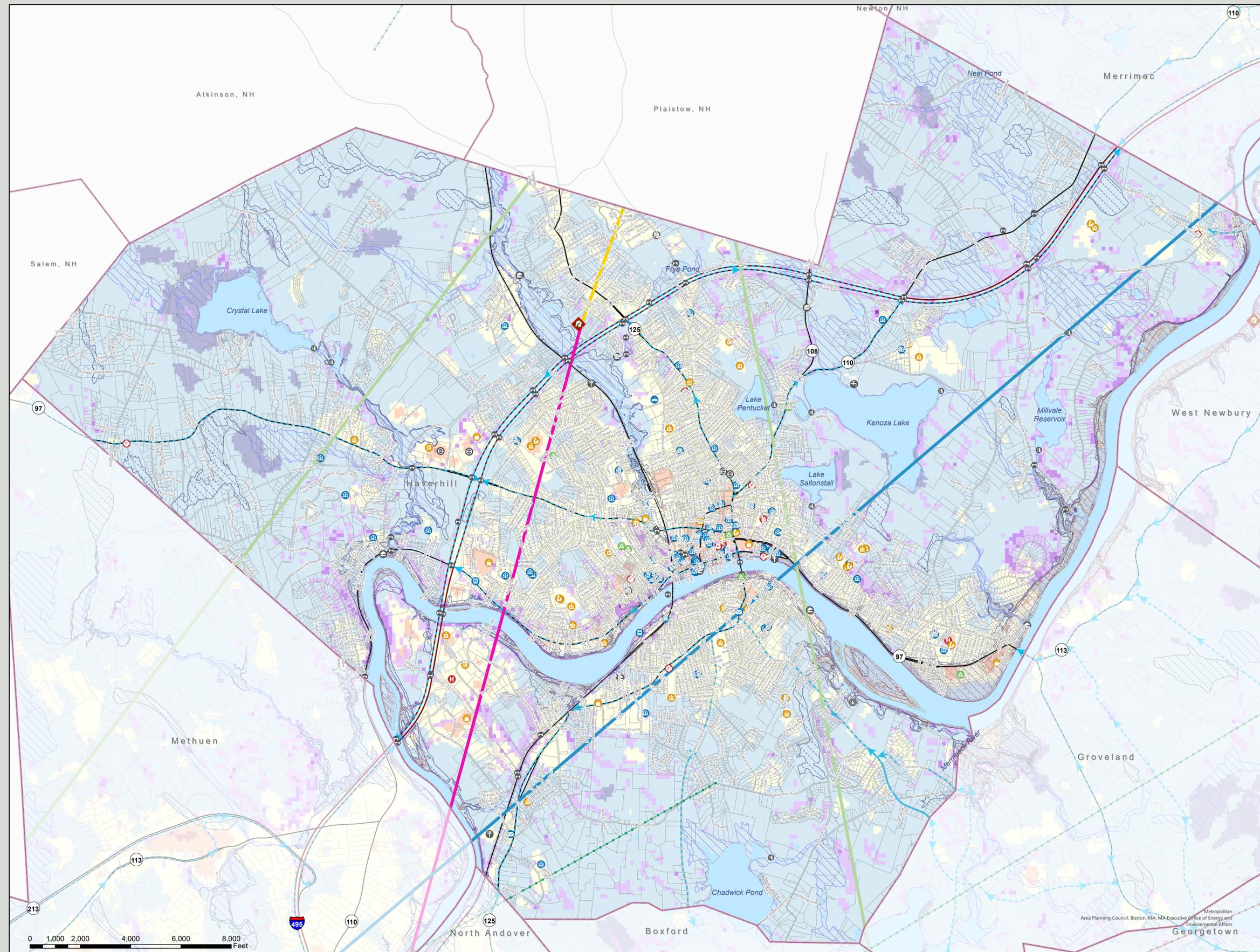
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

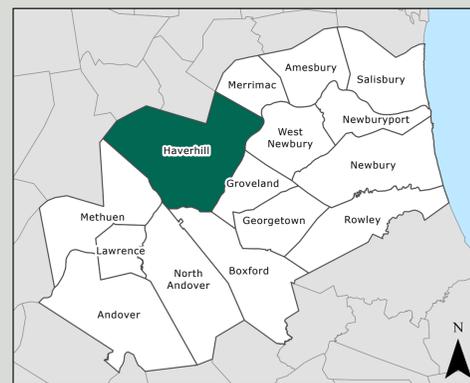
HAVERHILL, MA Current Hazard Conditions



Legend

Land Surface Temp Variation	Tornado Tracks
0.01 - 0.2	FEMA Floodplain
0.2 - 0.4	100 Year Floodplain
0.4 - 0.6	500 Year Floodplain
0.6 - 0.8	Slope Stability
0.8 - 0.99	Unstable
Earthquakes	Moderately Unstable
Tornadoes	Low Stability
Hurricane (Cat. 3)	Hurricane Surge Inundation
Hurricane (Cat. 2)	Category 1
Hurricane (Cat. 1)	Category 2
Tropical Storm	Category 3
Tropical Depression	Category 4
Fault Lines	Landslides
	High Susceptibility and Incidence

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Prison | Solid Waste Disposal | Transportation - Bus Hub | Bridges |
| College/School | E911 Dispatch | Hospital | Other | Recreation Resources | Special Population Housing | Transportation - Train Hub | Dams |
| DPW | Emergency Ops Center | Housing Location | Police | Sewage Pump Station | Telecommunication Tower | Waste Water Treatment Plant | Evacuation Routes |
| Elderly Housing | Emergency Shelter | Library | Post Office | Shopping Center | Transportation - Air Hub | Water System Resources | |

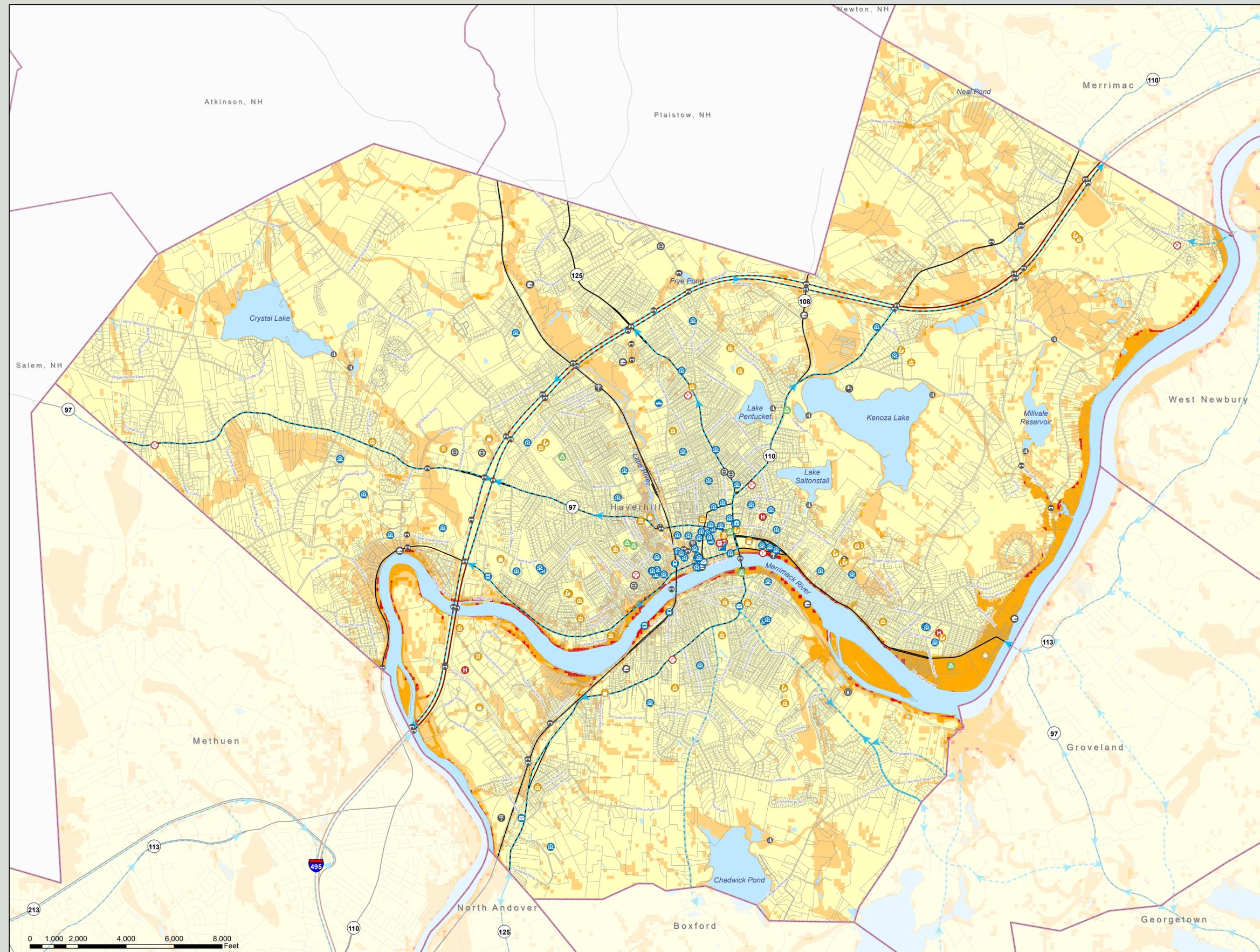
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HAVERHILL, MA Composite Hazard Conditions

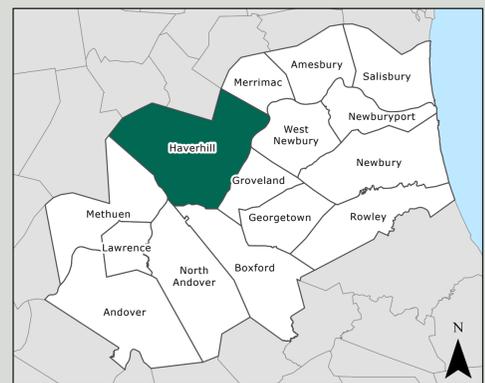


Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
 Regionally Experienced Hazards
 Landslide Susceptibility and Incidence
 FEMA Flood Insurance Rate Maps
 Hurricane Surge Inundation Zones
 Slope Stability

Regionwide Hazard Conditions
 100 Year Wind Speed: 110+ mph
 Average Annual Snowfall: 48.1-72.0 in
 Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
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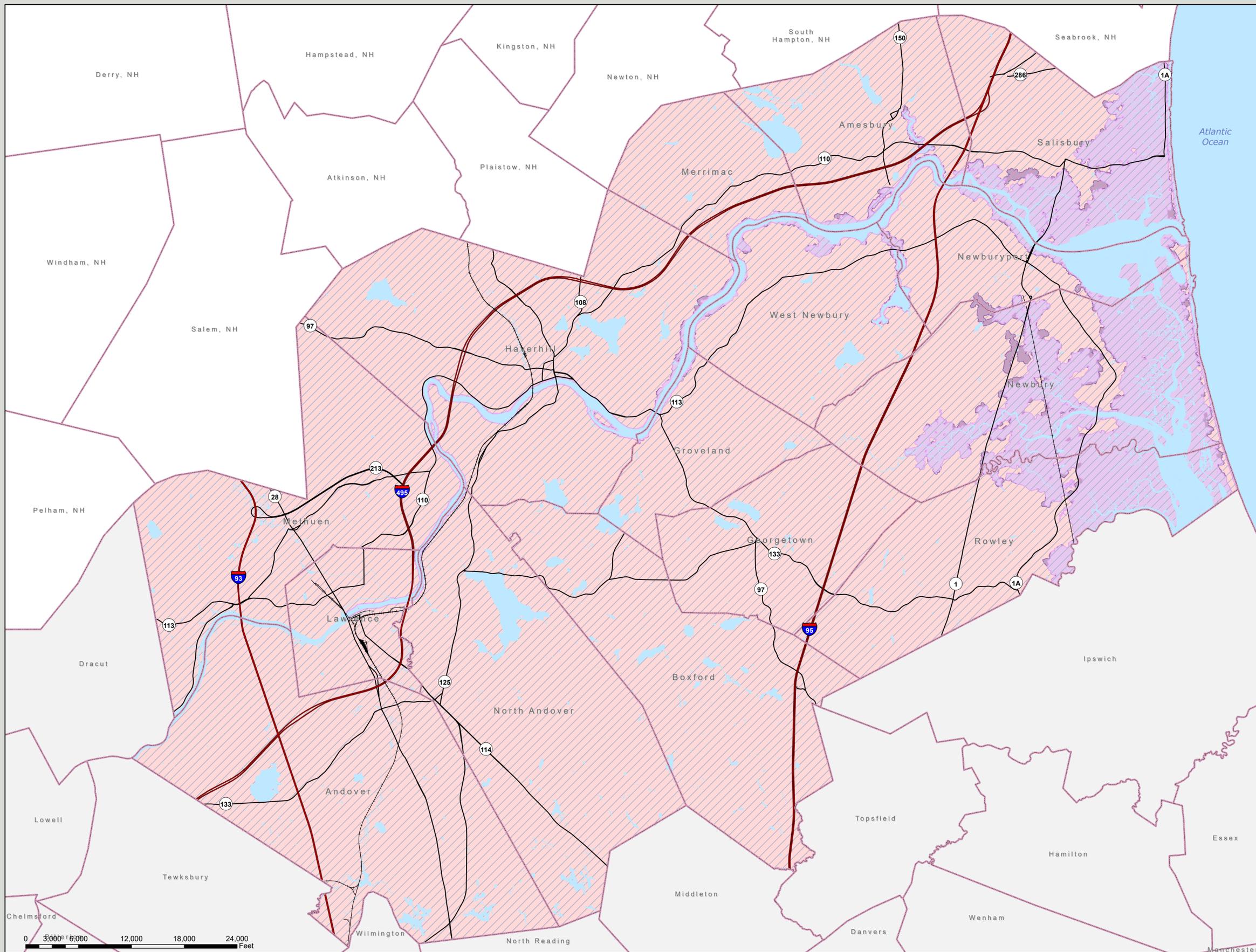
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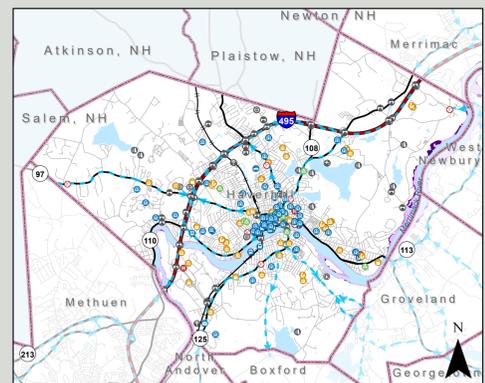
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
100 Year Storm Percent Exceedance Probability	49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%)	Interstate
10.5-16.5 days	Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Prison | Solid Waste Disposal | Transportation - Bus Hub | Bridges |
| College/School | E911 Dispatch | Hospital | Other | Recreation Resources | Special Population Housing | Transportation - Train Hub | Dams |
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| Elderly Housing | Emergency Shelter | Library | Post Office | Shopping Center | Transportation - Air Hub | Water System Resources | |

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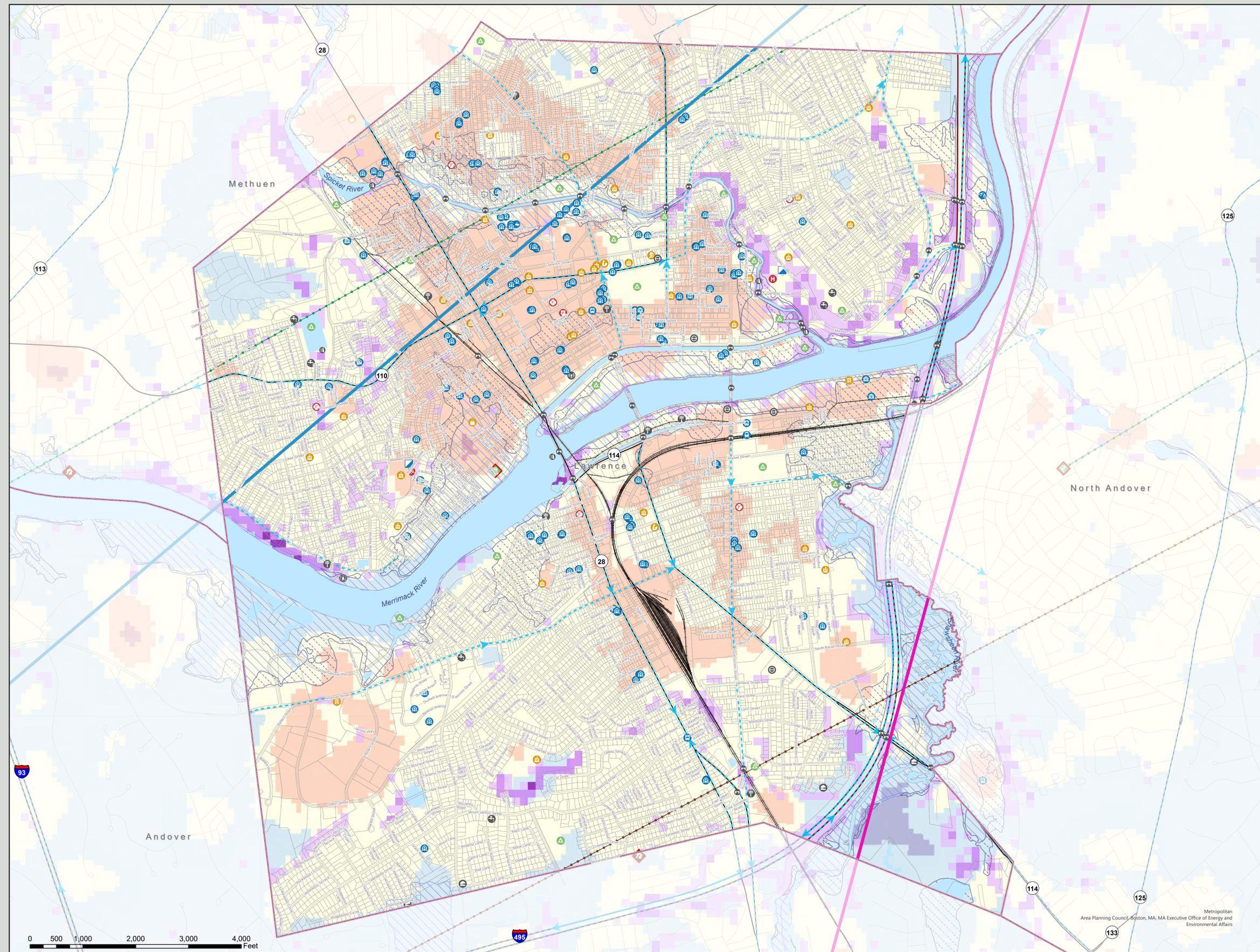
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

LAWRENCE, MA Current Hazard Conditions



Legend

Land Surface Temp Variation	Tornado Tracks
0.01 - 0.2	FEMA Floodplain
0.2 - 0.4	100 Year Floodplain
0.4 - 0.6	500 Year Floodplain
0.6 - 0.8	Slope Stability
0.8 - 0.99	Unstable
Earthquakes	Moderately Unstable
Tornadoes	Low Stability
Hurricane Tracks	Hurricane Surge Inundation
Hurricane (Cat. 3)	Category 1
Hurricane (Cat. 2)	Category 2
Hurricane (Cat. 1)	Category 3
Tropical Storm	Category 4
Tropical Depression	Landslides
Fault Lines	High Susceptibility and Incidence

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Metropolitan Area Planning Council, Boston, MA; MA Executive Office of Energy and Environmental Affairs

Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Train Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Waste Water Treatment Plant	Dams
DPW	Emergency Ops Center	Transportation - Bus Hub	Police	Sewage Pump Station	Telecommunication Tower	Water System Resources	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Housing Location	

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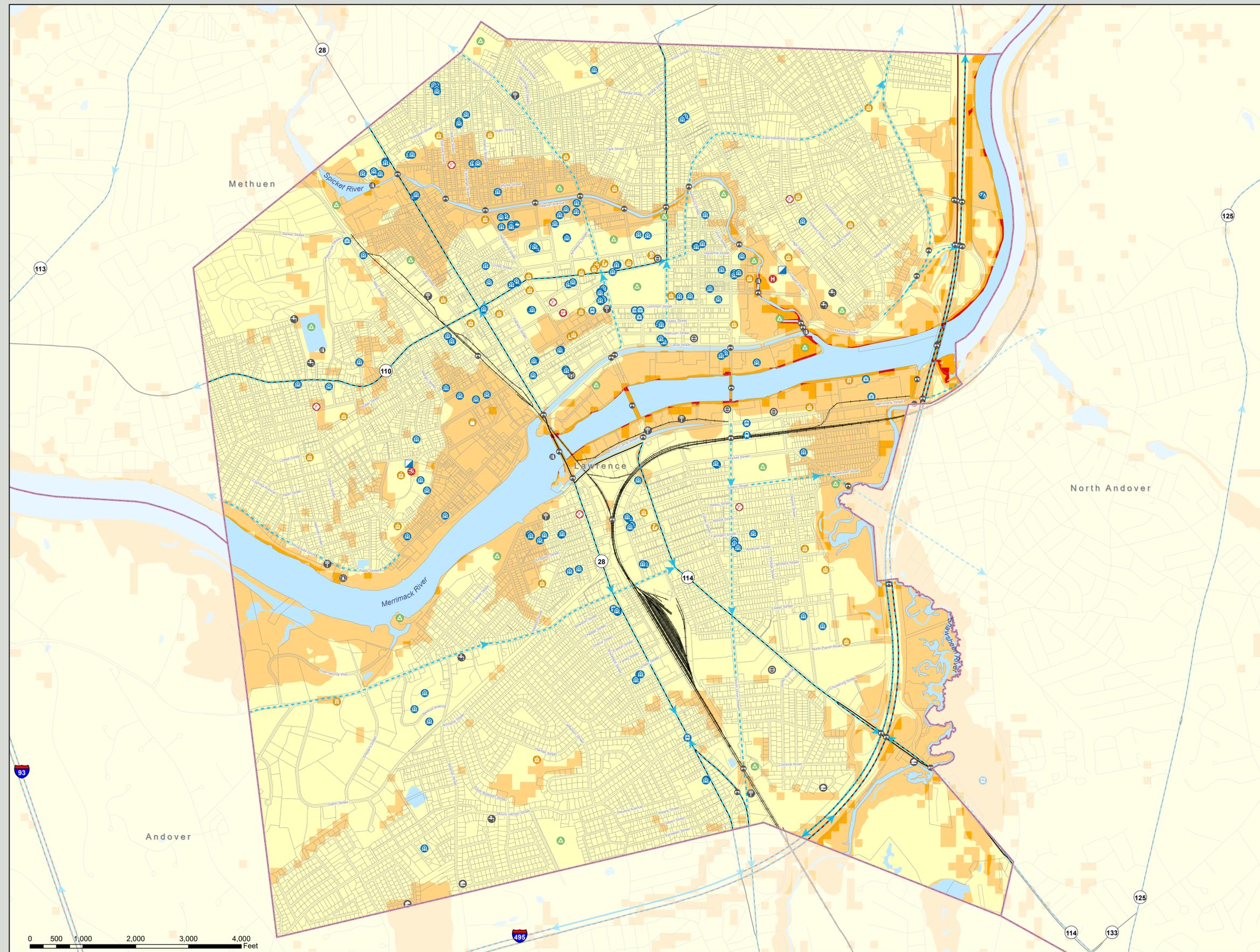
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

LAWRENCE, MA Composite Hazard Conditions

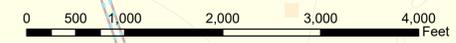


Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
 Regionally Experienced Hazards
 Landslide Susceptibility and Incidence
 FEMA Flood Insurance Rate Maps
 Hurricane Surge Inundation Zones
 Slope Stability

Regionwide Hazard Conditions
 100 Year Wind Speed: 110+ mph
 Average Annual Snowfall: 48.1-72.0 in
 Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

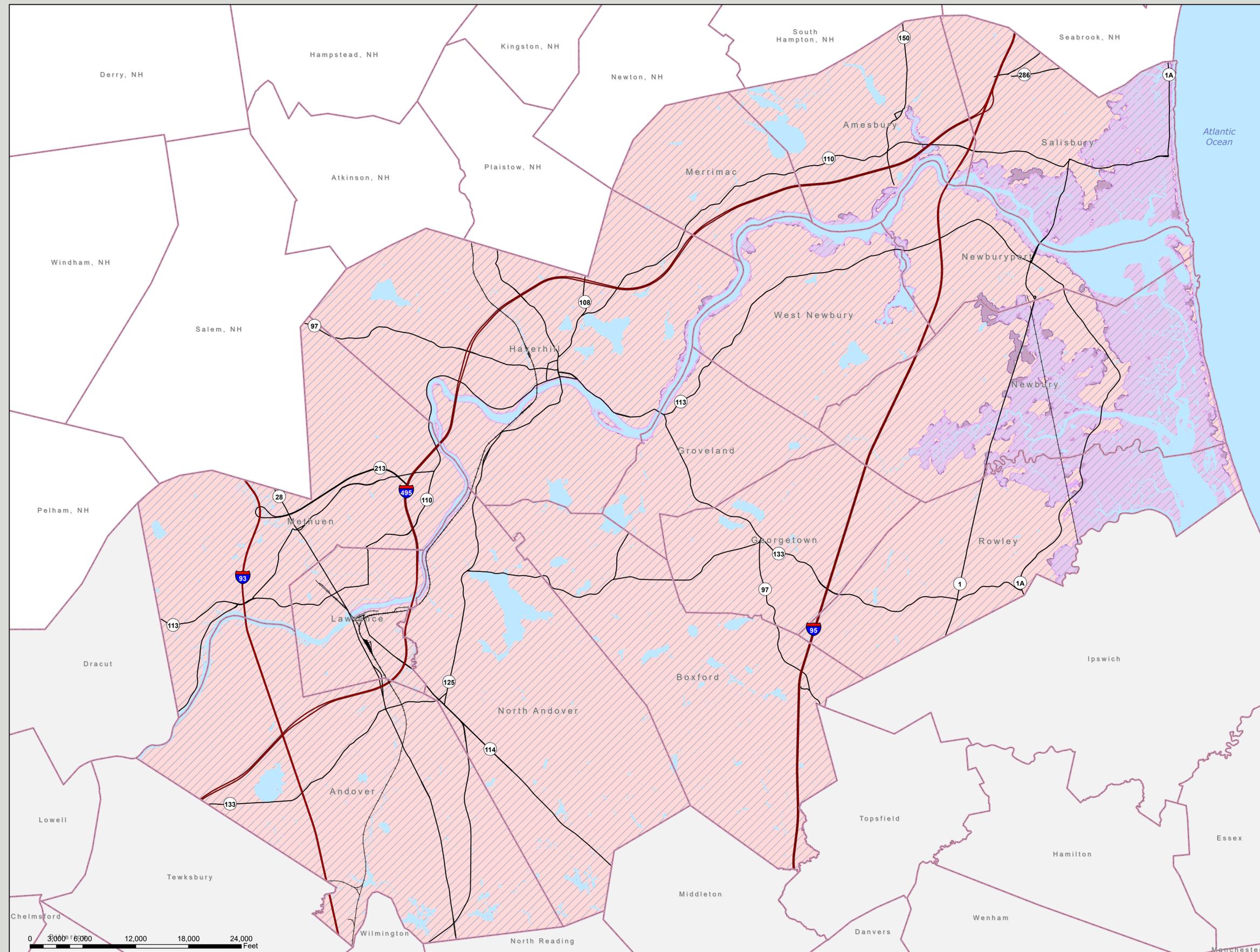
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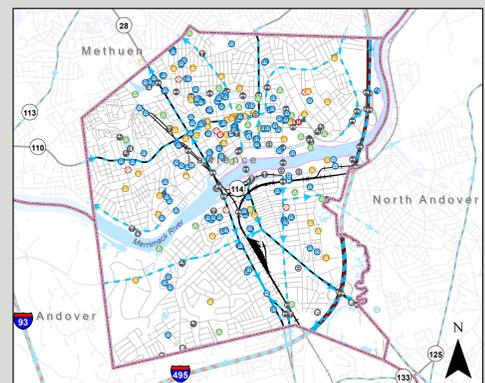
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
100 Year Storm Percent Exceedance Probability	49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%)	Interstate
10.5-16.5 days	Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Prison | Solid Waste Disposal | Transportation - Bus Hub | Bridges |
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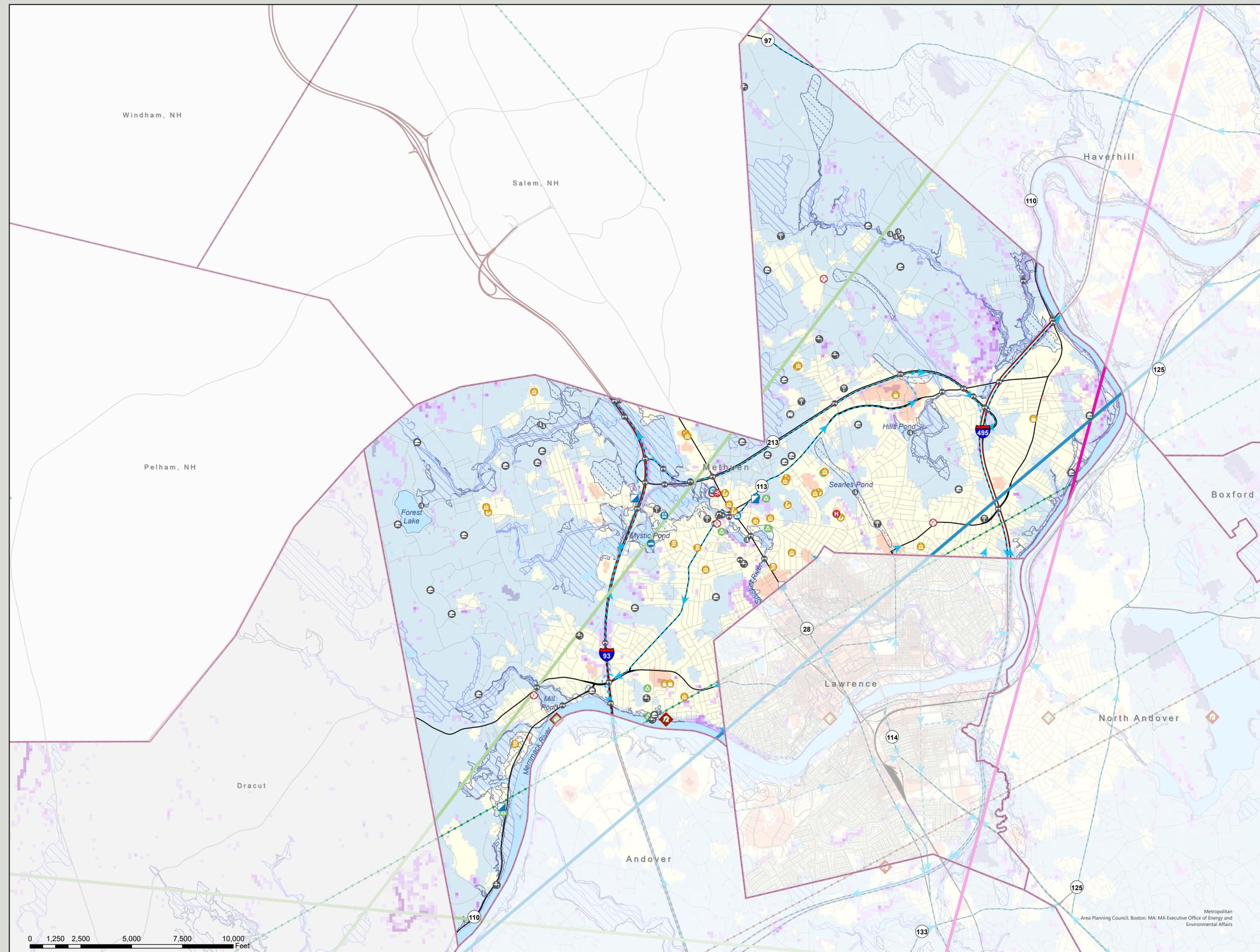
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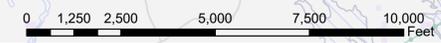
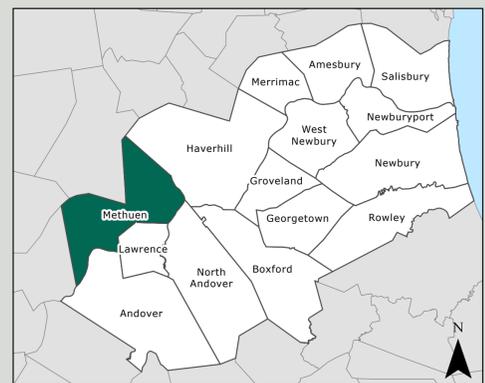
METHUEN, MA Current Hazard Conditions



Legend

Land Surface Temp Variation	Tornado Tracks
0.01 - 0.2	Slope Stability
0.2 - 0.4	Unstable
0.4 - 0.6	Moderately Unstable
0.6 - 0.8	Low Stability
0.8 - 0.99	FEMA Floodplain
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Tropical Storm	Category 3
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Fault Lines	Landslides
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Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
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Metropolitan Area Planning Council, Boston, MA; MA Executive Office of Energy and Environmental Affairs

Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
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Elderly Housing	Emergency Shelter	Office Park	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams	

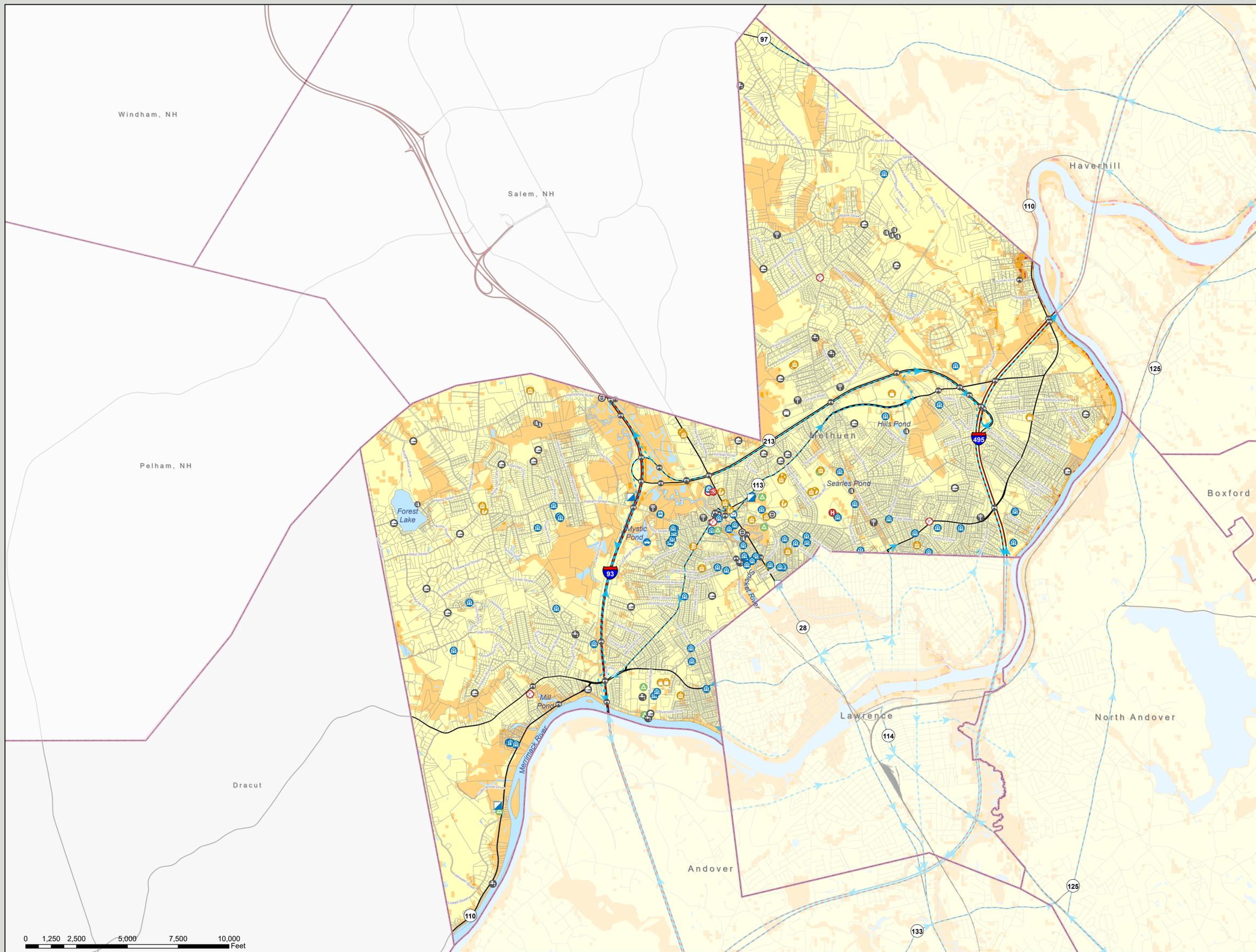
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METHUEN, MA Composite Hazard Conditions

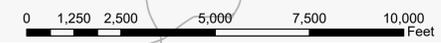
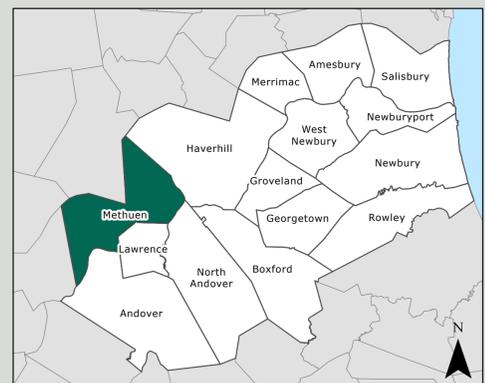


Legend

Composite Hazard Score	Parcel Boundary
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 FEMA Flood Insurance Rate Maps
 Hurricane Surge Inundation Zones
 Slope Stability

Regionwide Hazard Conditions
 100 Year Wind Speed: 110+ mph
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 Drought in Effect



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
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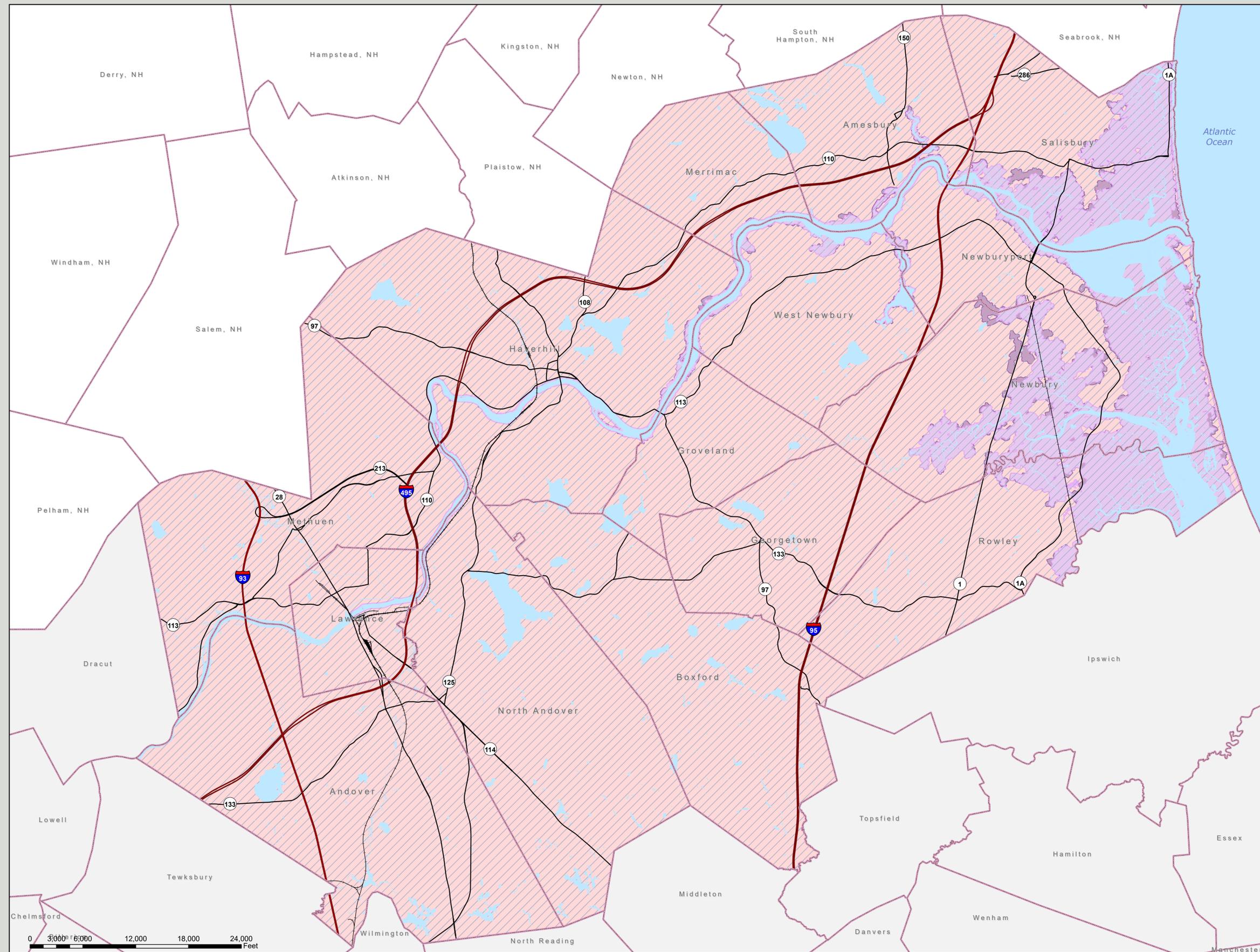
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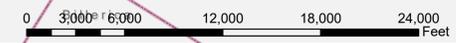
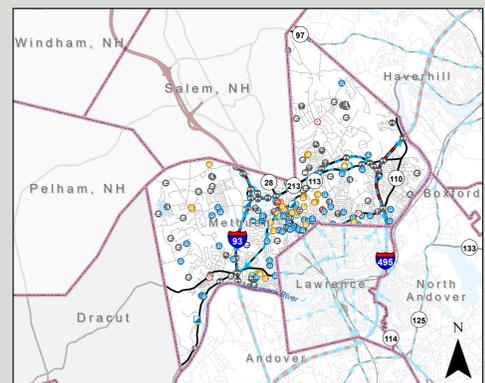
Regional 2050 Hazard Condition Projections



Legend

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Current Regional Baselines*
Average Annual Precipitation: 45.4 in
Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

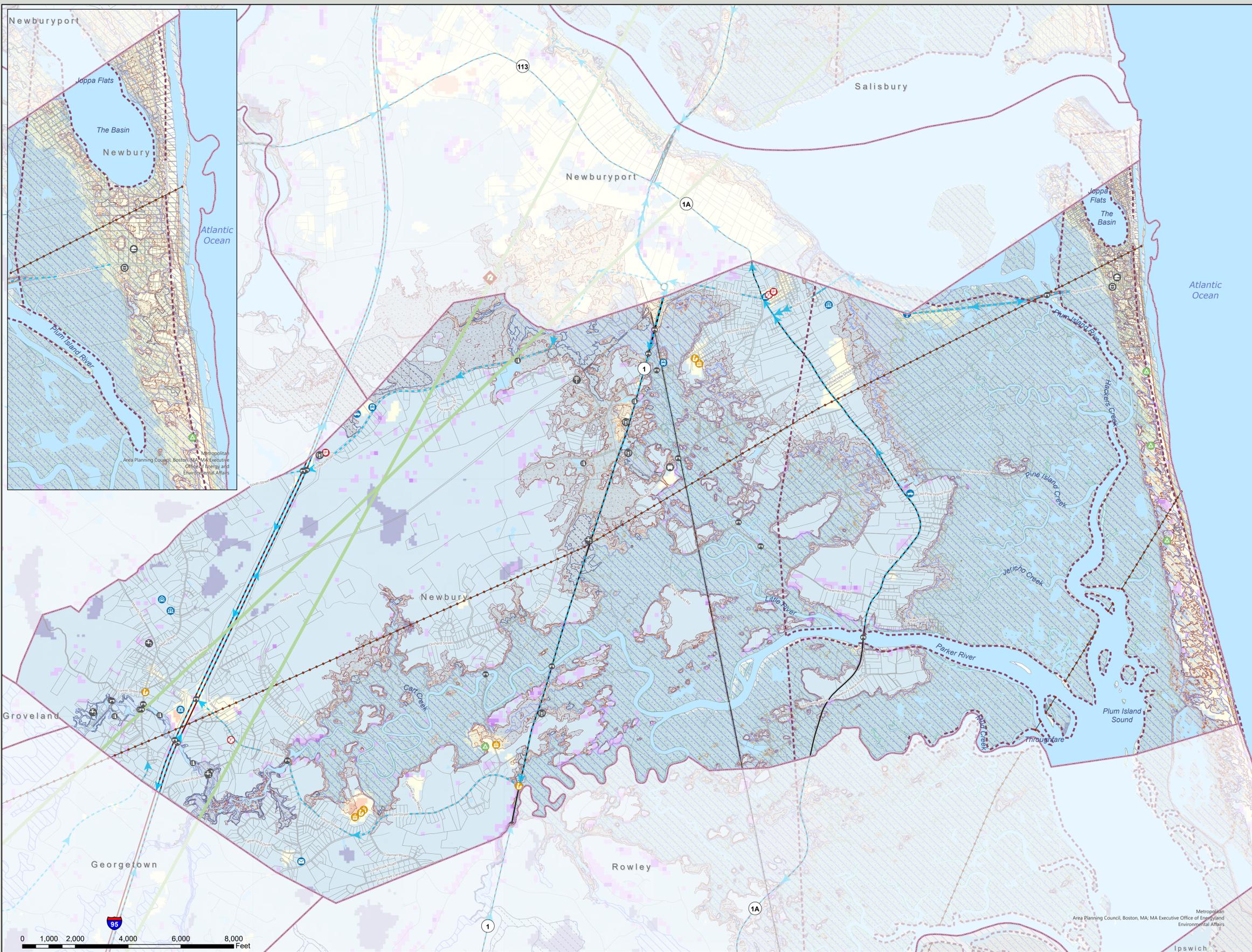
- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Recreation Resources | Special Population Housing | Transportation - Train Hub | Bridges |
| College/School | E911 Dispatch | Hospital | Police | Sewage Pump Station | Telecommunication Tower | Waste Water Treatment Plant | Dams |
| DPW | Emergency Ops Center | Housing Location | Post Office | Shopping Center | Transportation - Air Hub | Water System Resources | Evacuation Routes |
| Elderly Housing | Emergency Shelter | Library | Prison | Solid Waste Disposal | Transportation - Bus Hub | Other | |

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Merrimack Valley Multi-Hazard Mitigation Plan 2024

NEWBURY, MA Current Hazard Conditions



Legend

Land Surface Temp Variation (+/-)	Tornado Tracks
0.01 - 0.2	Slope Stability
0.2 - 0.4	Unstable
0.4 - 0.6	Moderately Unstable
0.6 - 0.8	Low Stability
0.8 - 0.99	Hurricane Surge Inundation
Earthquakes	Category 1
Tornadoes	Category 2
Hurricane Tracks	Category 3
Hurricane (Cat. 3)	Category 4
Hurricane (Cat. 2)	FEMA Floodplain
Hurricane (Cat. 1)	100 Year Floodplain
Tropical Storm	500 Year Floodplain
Tropical Depression	Landslides
Fault Lines	High Susceptibility and Incidence

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
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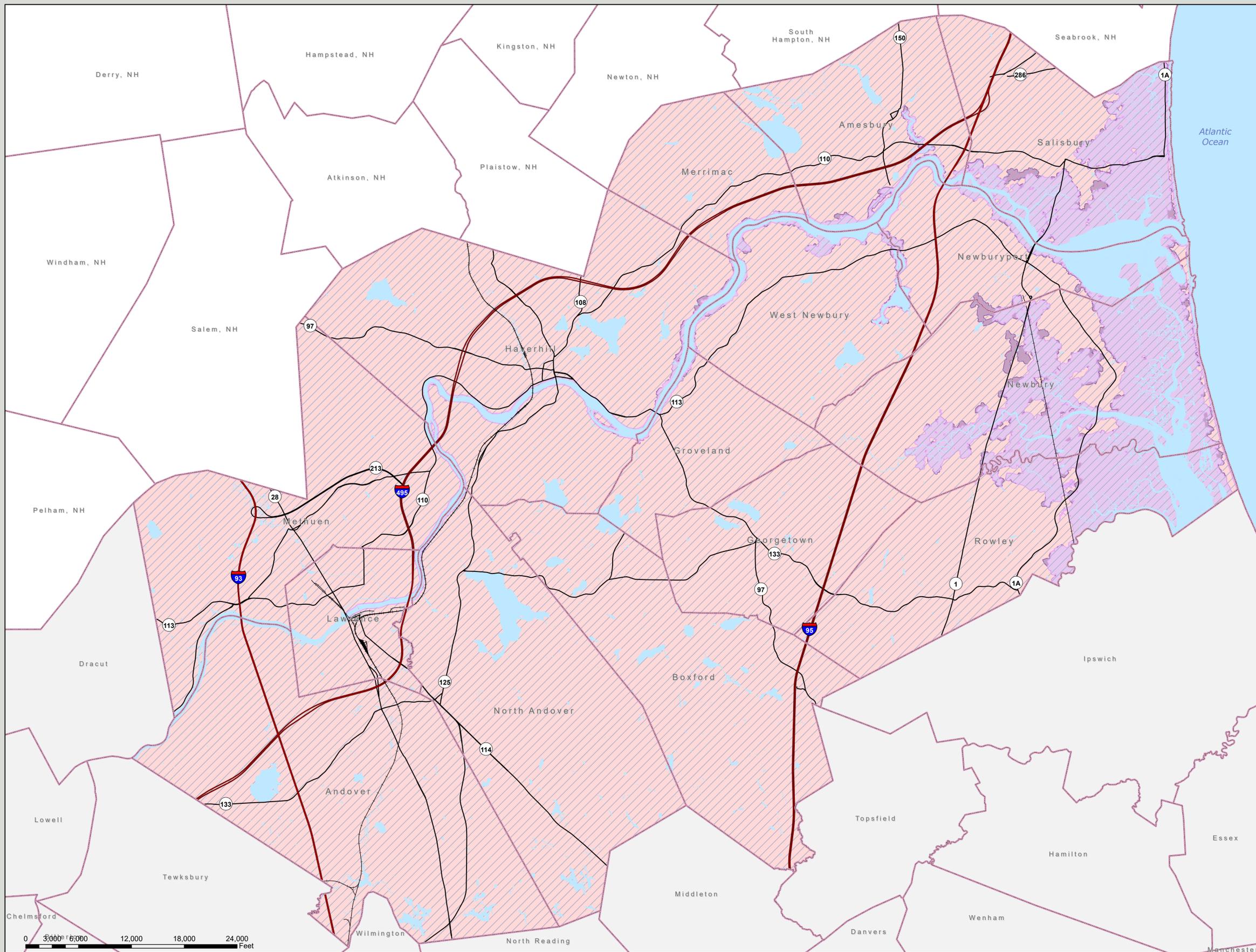
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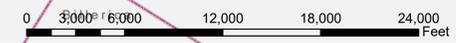
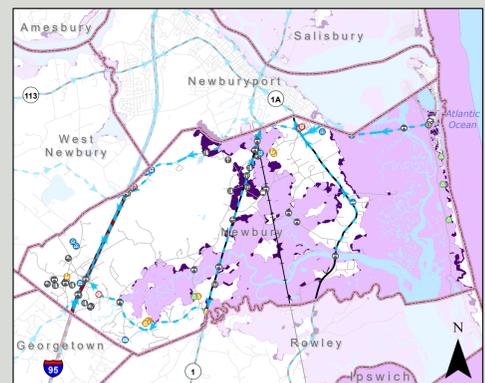
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
100 Year Storm Percent Exceedance Probability	49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%)	Interstate
10.5-16.5 days	Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
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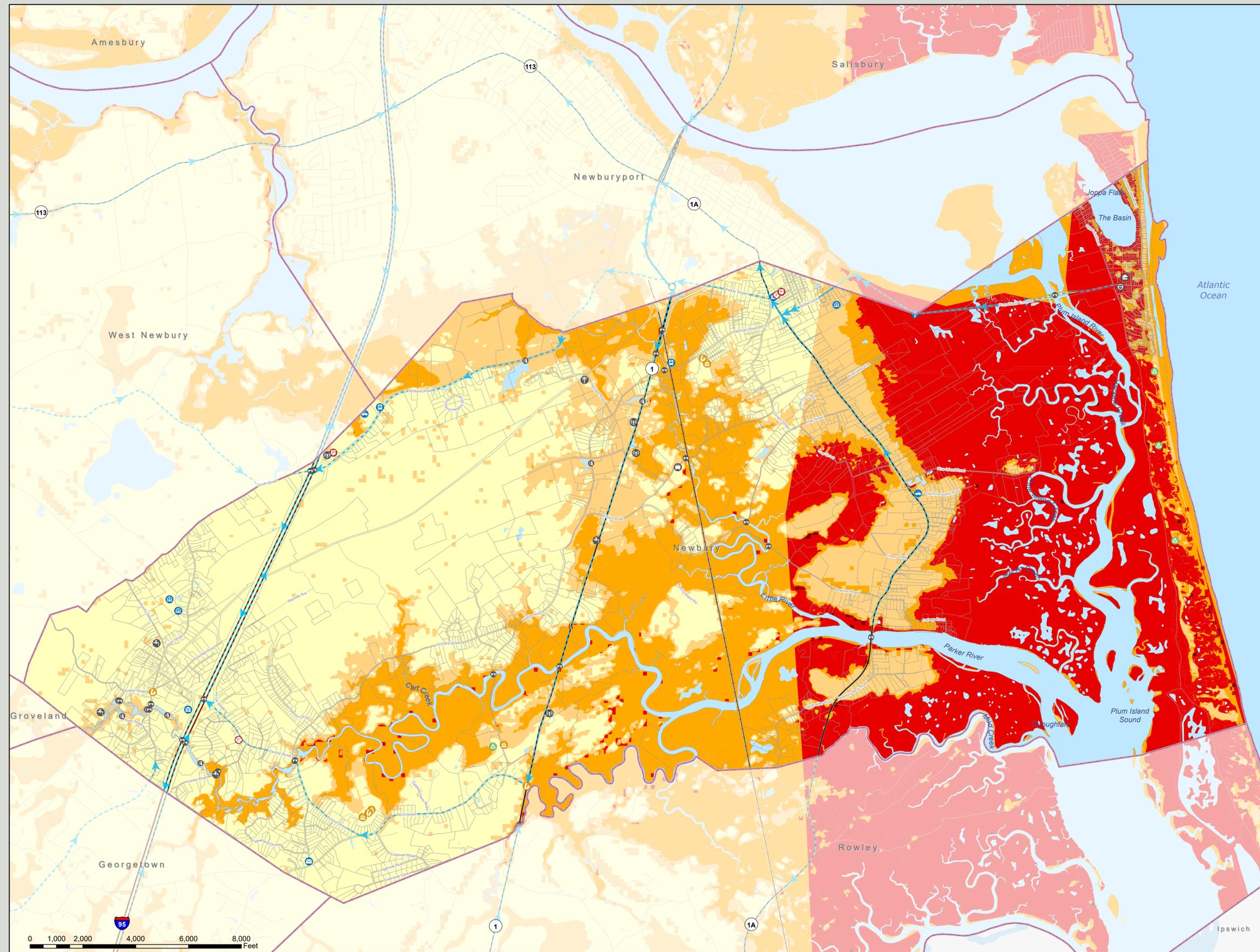
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

NEWBURY, MA Composite Hazard Conditions



Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
Regionally Experienced Hazards
Landslide Susceptibility and Incidence
FEMA Flood Insurance Rate Maps
Hurricane Surge Inundation Zones
Slope Stability

Regionwide Hazard Conditions
100 Year Wind Speed: 110+ mph
Average Annual Snowfall: 48.1-72.0 in
Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
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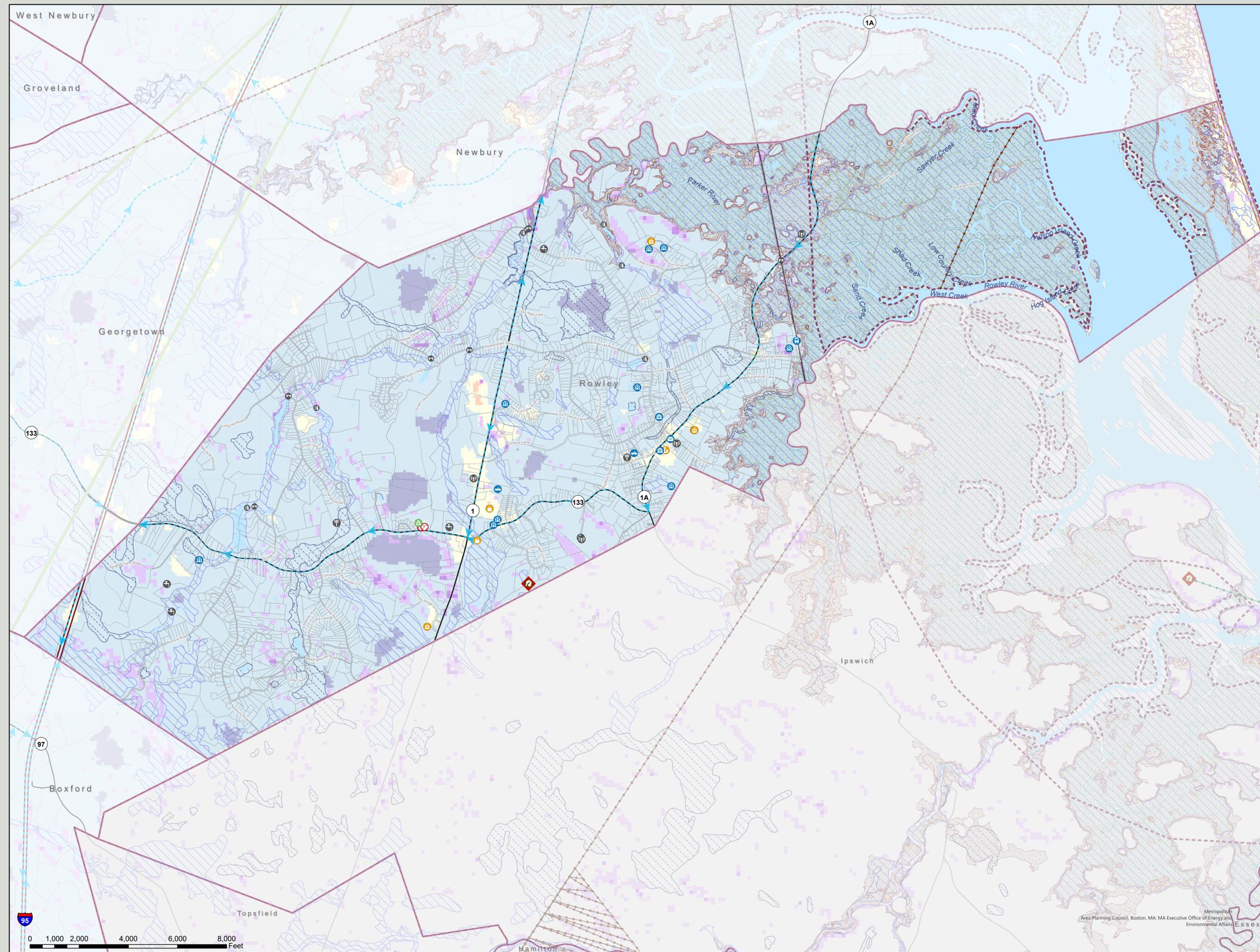
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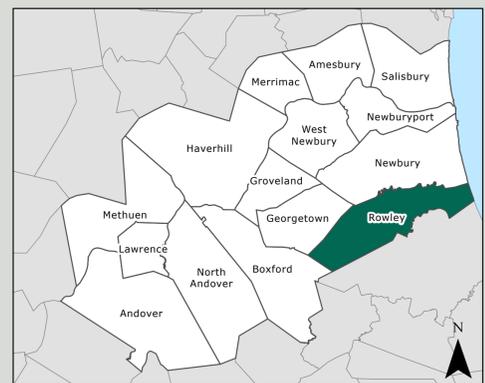
ROWLEY, MA Current Hazard Conditions



Legend

	0.01- 0.2		Tornado Tracks
	0.2 - 0.4		Slope Stability Unstable
	0.4 - 0.6		Moderately Unstable
	0.6 - 0.8		Low Stability
	0.8 - 0.99		Hurricane Surge Inundation Category 1
	Earthquakes		Category 2
	Tornadoes		Category 3
	Hurricane (Cat. 3)		Category 4
	Hurricane (Cat. 2)		FEMA Floodplain 100 Year Floodplain
	Hurricane (Cat. 1)		500 Year Floodplain
	Tropical Storm		Landslides High Susceptibility and Incidence
	Tropical Depression		
	Fault Lines		

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Critical Facilities and Infrastructure

	City/Town Offices		Electric Power Resources		Fire Station		Office Park		Prison		Solid Waste Disposal		Transportation - Bus Hub		Bridges
	College/School		E911 Dispatch		Hospital		Other		Recreation Resources		Special Population Housing		Transportation - Train Hub		Dams
	DPW		Emergency Ops Center		Housing Location		Police		Sewage Pump Station		Telecommunication Tower		Waste Water Treatment Plant		Evacuation Routes
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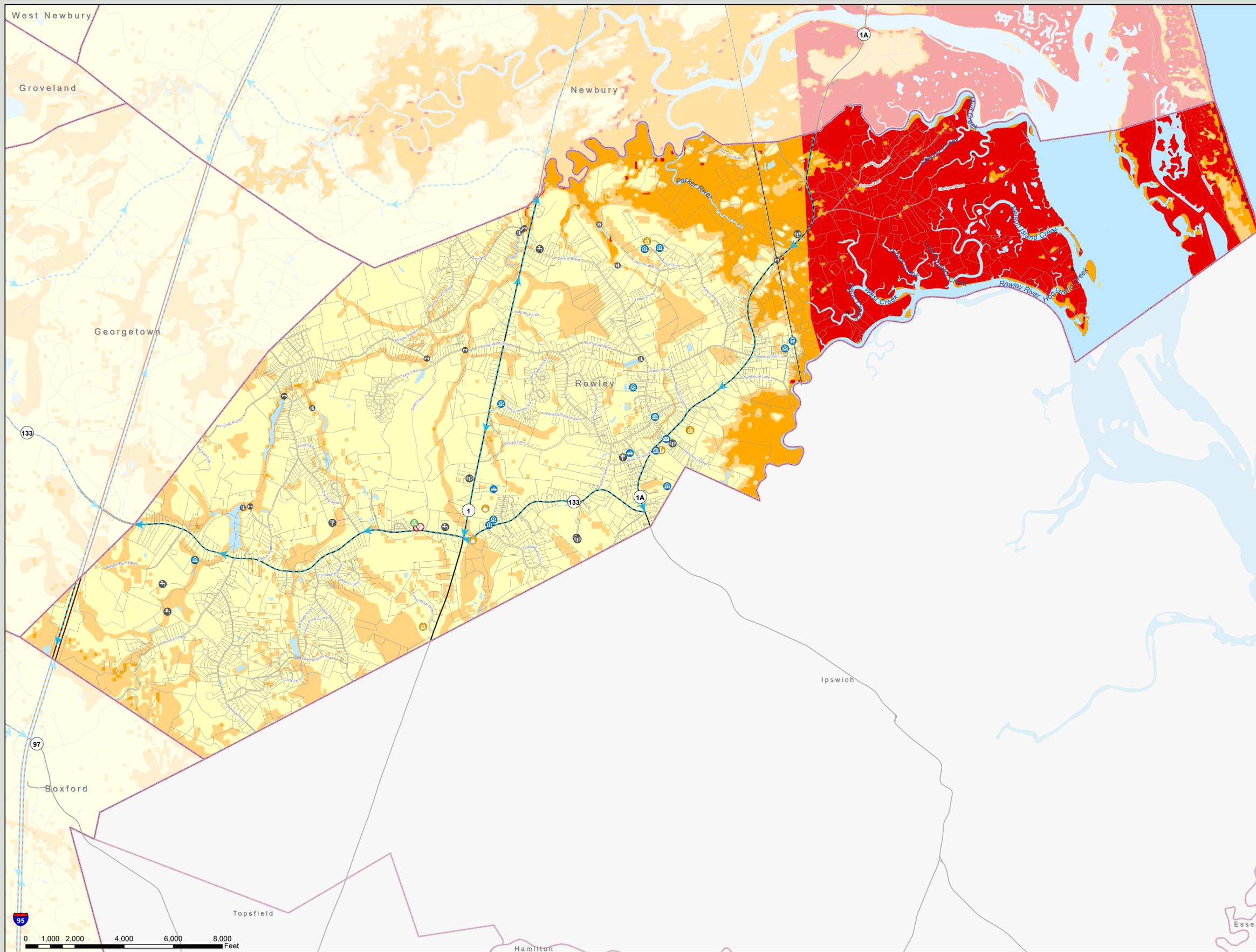
Merrimack Valley

Multi-Hazard Mitigation Plan

2024

ROWLEY, MA

Composite Hazard Conditions



Legend

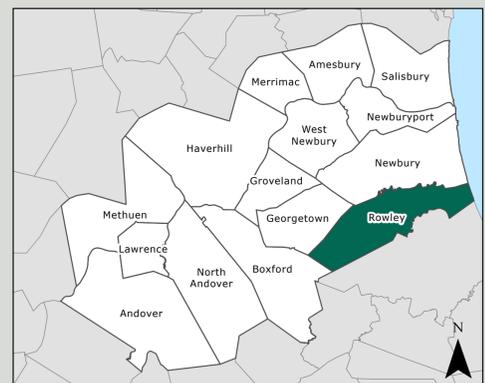
Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers

- Regionally Experienced Hazards
- Landslide Susceptibility and Incidence
- FEMA Flood Insurance Rate Maps
- Hurricane Surge Inundation Zones
- Slope Stability

Regionwide Hazard Conditions

- 100 Year Wind Speed: 110+ mph
- Average Annual Snowfall: 48.1-72.0 in
- Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
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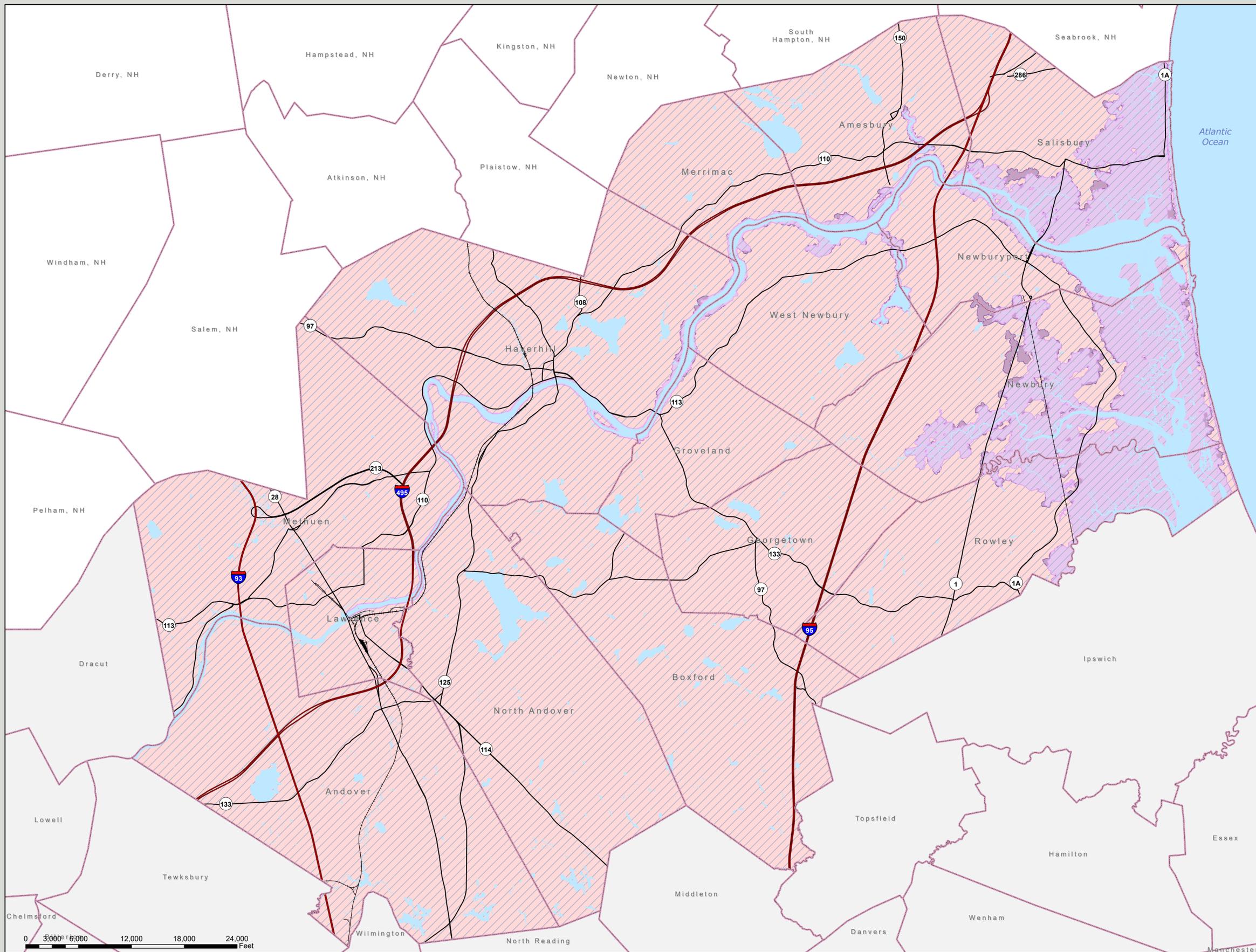
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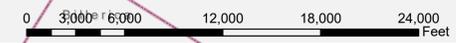
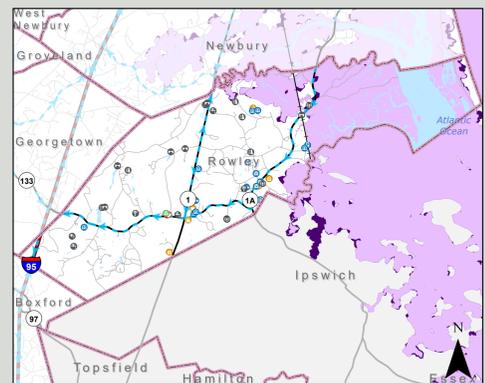
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
100 Year Storm Percent Exceedance Probability	49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%)	Interstate
10.5-16.5 days	Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
| City/Town Offices | Electric Power Resources | Fire Station | Office Park | Prison | Solid Waste Disposal | Transportation - Bus Hub | Bridges |
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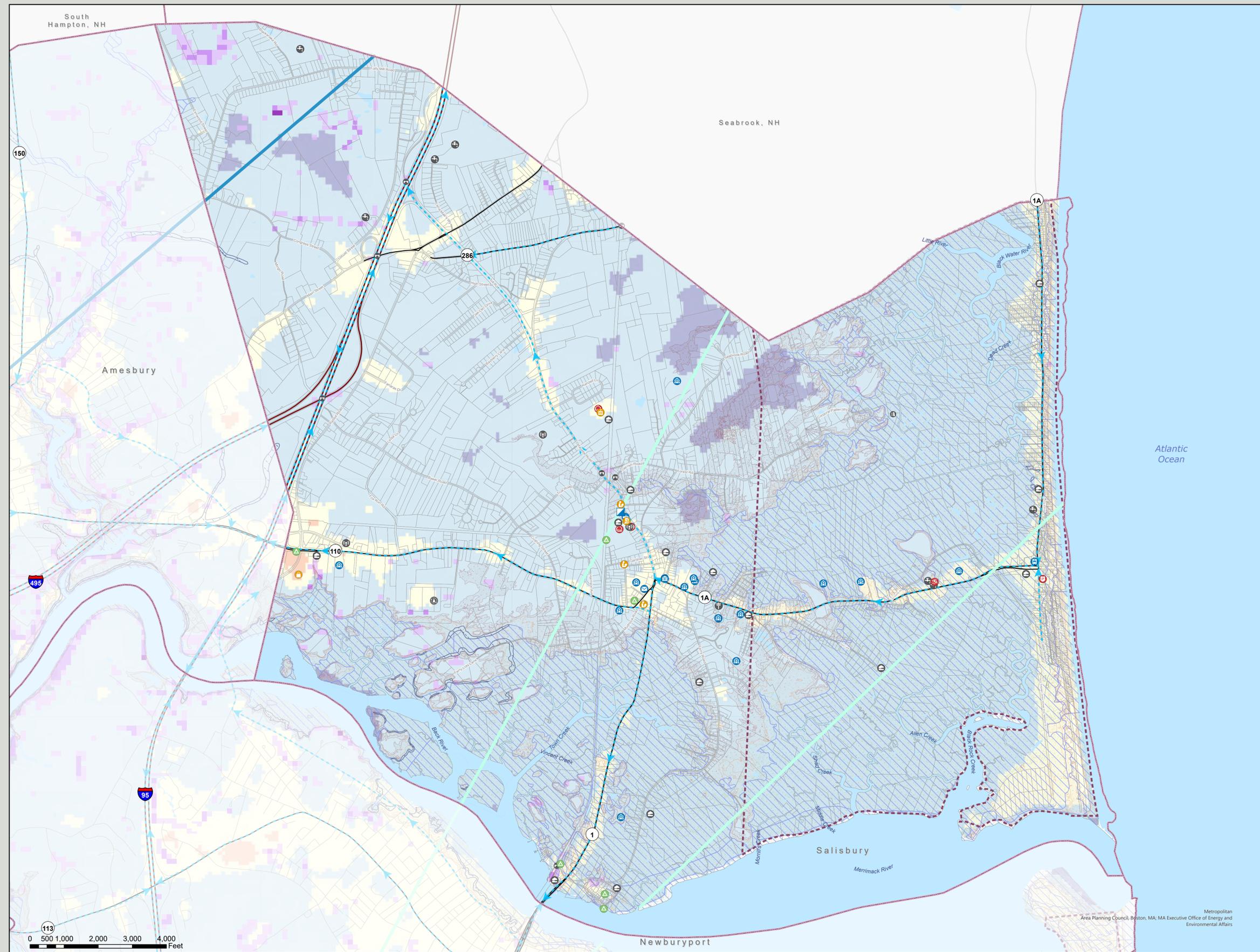
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

SALISBURY, MA Current Hazard Conditions



Legend

Land Surface Temp Variation (F above norm)	Tornado Tracks
0.01 - 0.2	Slope Stability
0.2 - 0.4	Unstable
0.4 - 0.6	Moderately Unstable
0.6 - 0.8	Low Stability
0.8 - 0.99	Hurricane Surge Inundation
Earthquakes	Category 1
Tornadoes	Category 2
Hurricane (Cat. 3)	Category 3
Hurricane (Cat. 2)	Category 4
Hurricane (Cat. 1)	FEMA Floodplain
Tropical Storm	100 Year Floodplain
Tropical Depression	500 Year Floodplain
Fault Lines	Landslides
	High Susceptibility and Incidence

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
 Low Susceptibility and Incidence of Landslides except at coast



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
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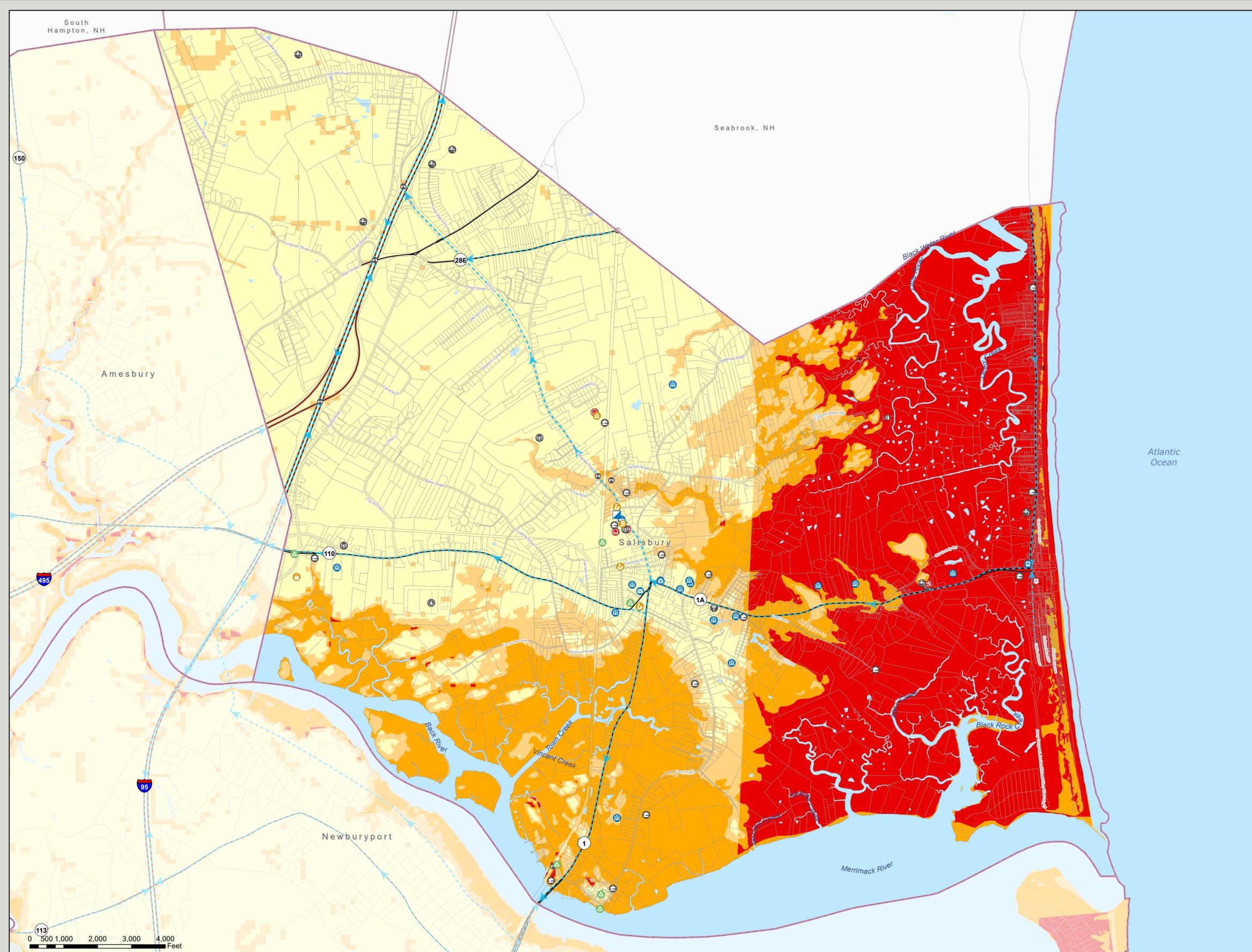
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

SALISBURY, MA Composite Hazard Conditions



Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
Regionally Experienced Hazards
Landslide Susceptibility and Incidence
FEMA Flood Insurance Rate Maps
Hurricane Surge Inundation Zones
Slope Stability

Regionwide Hazard Conditions
100 Year Wind Speed: 110+ mph
Average Annual Snowfall: 48.1-72.0 in
Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
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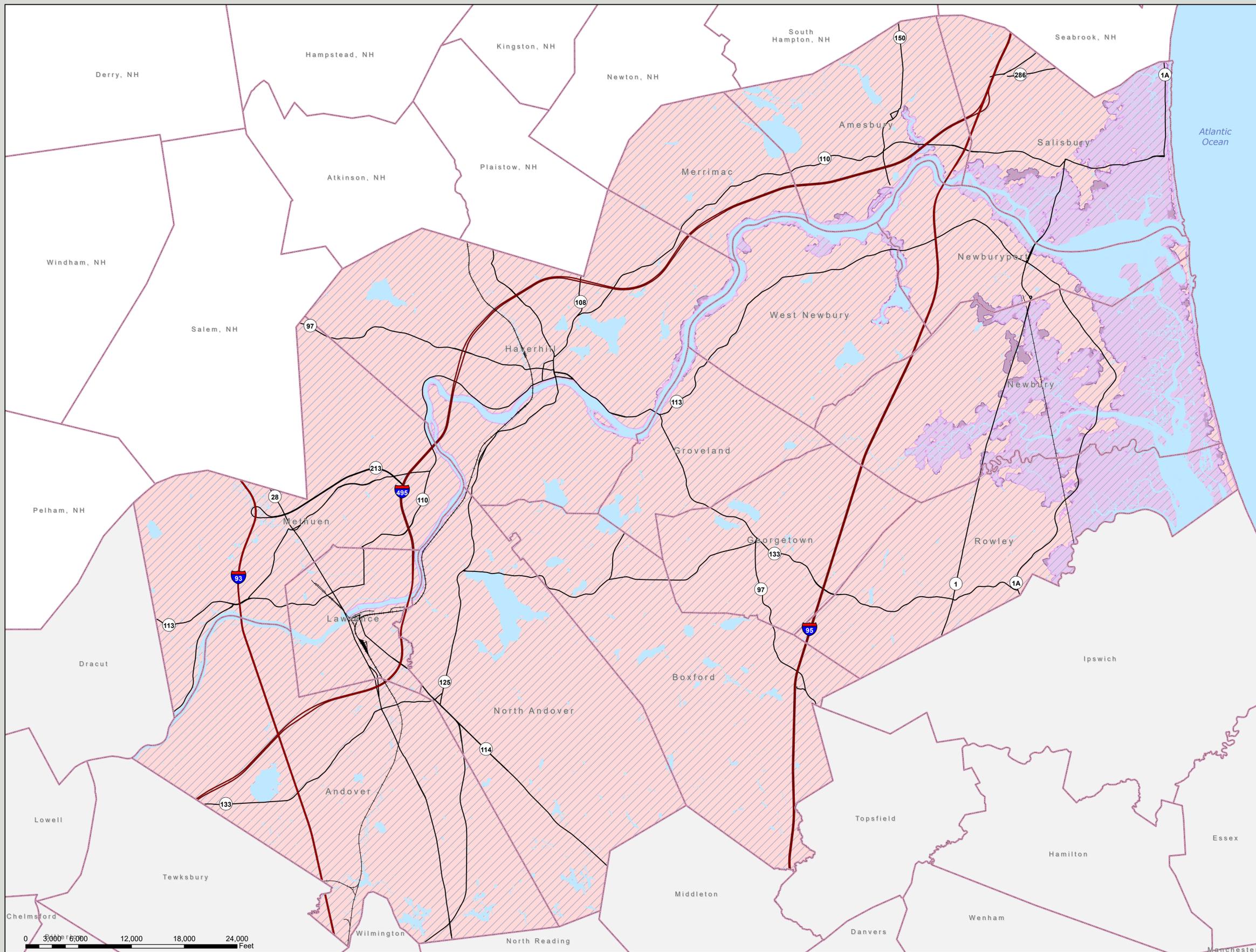
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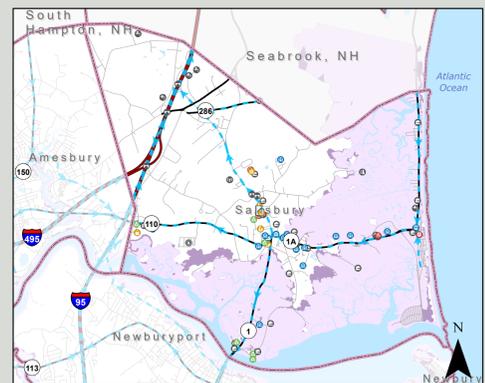
Regional 2050 Hazard Condition Projections



Legend

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Critical Facilities and Infrastructure

- | | | | | | | | |
|-------------------|--------------------------|------------------|-------------|----------------------|----------------------------|-----------------------------|-------------------|
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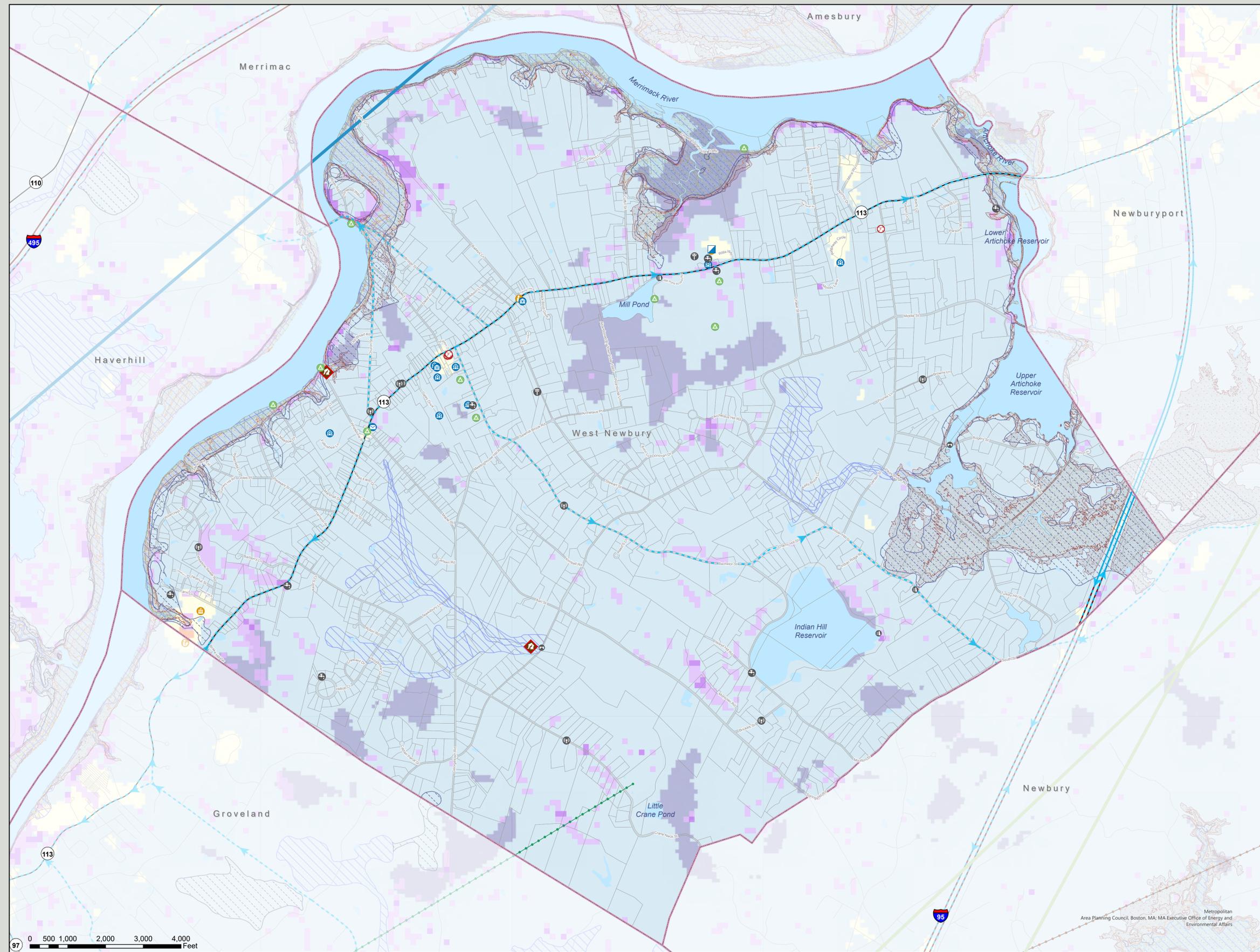
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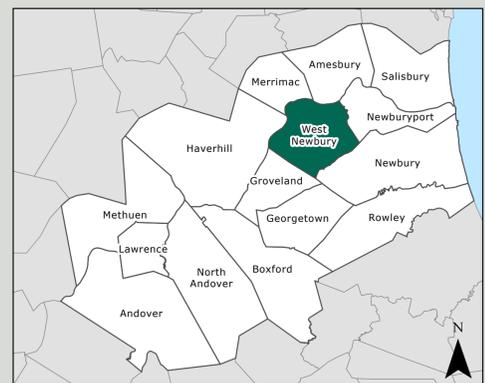
WEST NEWBURY, MA Current Hazard Conditions



Legend

Land Surface Temp Variation (+/-)	Tornado Tracks
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0.2 - 0.4	Unstable
0.4 - 0.6	Moderately Unstable
0.6 - 0.8	Low Stability
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	High Susceptibility and Incidence

Region Wide Hazard Conditions
 100 Year Storm Winds: Cat 3 - 110 mph
 Average Annual Snowfall: Cat H - 48.1-72.0 in
 Drought in Effect
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Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
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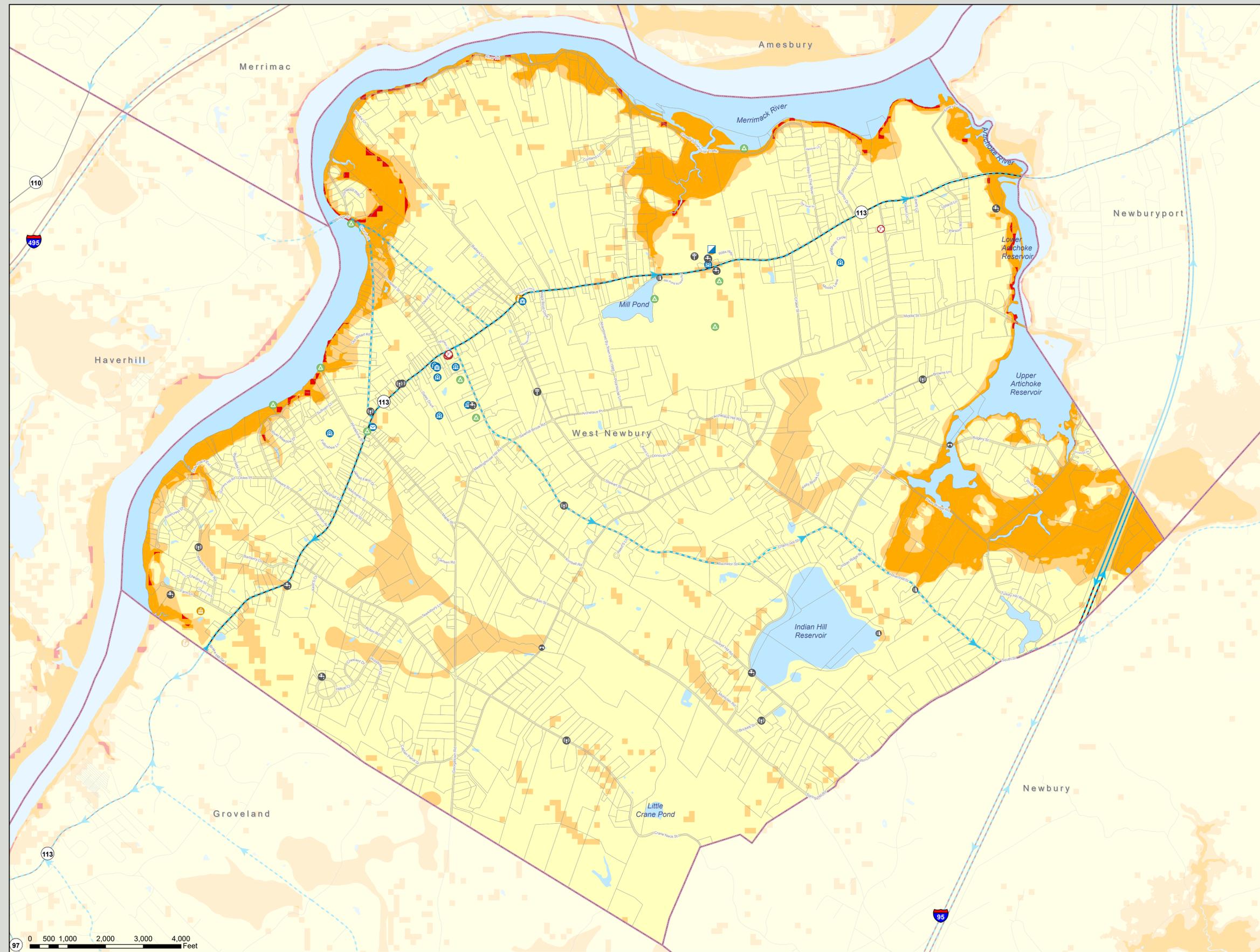
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Merrimack Valley Multi-Hazard Mitigation Plan 2024

WEST NEWBURY, MA Composite Hazard Conditions

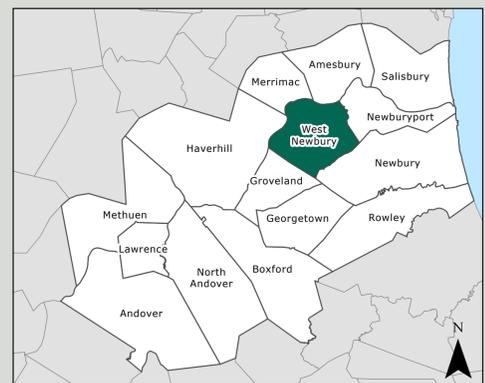


Legend

Composite Hazard Score	Parcel Boundary
Very Low (1 Hazard)	Hydrographic Feature
Low (2 Hazards)	Rail Lines
Moderate (3 Hazards)	Interstate
High (4 Hazards)	Major Road
Critical (5 Hazards)	Local Road
Municipal Boundary	

Composite Scoring Data Layers
 Regionally Experienced Hazards
 Landslide Susceptibility and Incidence
 FEMA Flood Insurance Rate Maps
 Hurricane Surge Inundation Zones
 Slope Stability

Regionwide Hazard Conditions
 100 Year Wind Speed: 110+ mph
 Average Annual Snowfall: 48.1-72.0 in
 Drought in Effect



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

Preparation of this Plan was funded by grant # HMGPP 1895-45 from the Massachusetts Emergency Management Agency (MEMA) in cooperation with the Department of Homeland Security-Federal Emergency Management Agency (FEMA). Matching funds were provided by MVPC.

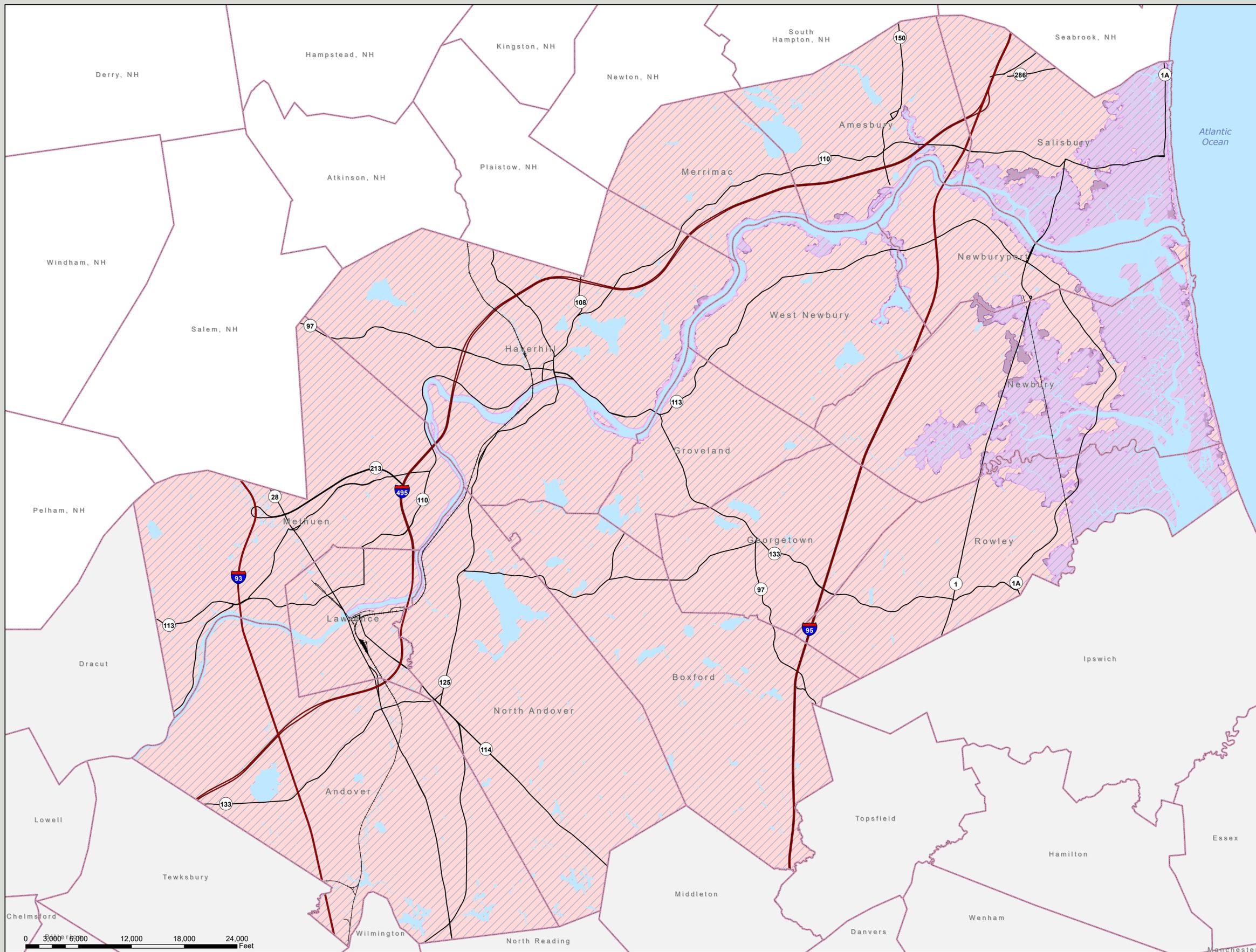
Data Sources: The data for this map was supplied by the Merrimack Valley Planning Commission, the Massachusetts Department of Conservation and Recreation, the Executive Office of Environmental Affairs/MassGIS (EOEA/MassGIS), and the municipality. The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition or regulatory interpretation.

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Merrimack Valley Multi-Hazard Mitigation Plan 2024

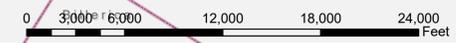
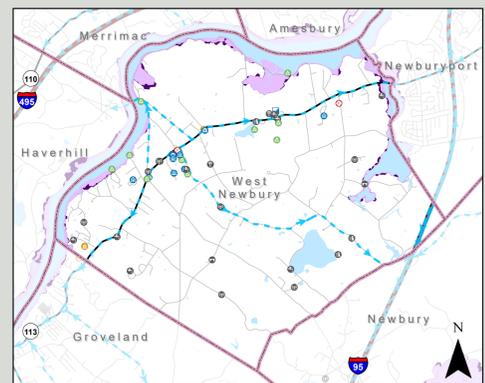
Regional 2050 Hazard Condition Projections



Legend

MA Coastal Flood Risk Model	Projected Average Precipitation (+8.5%)
100 Year Storm Percent Exceedance Probability	49.3 in
1,000 Year Storm Percent Exceedance Probability	Municipal Boundary
Projected Days Above 90F (+23.5-94.1%)	Interstate
10.5-16.5 days	Major Road

Current Regional Baselines*
 Average Annual Precipitation: 45.4 in
 Average Number of Days Above 90F: 8.5 days



Critical Facilities and Infrastructure

City/Town Offices	Electric Power Resources	Fire Station	Office Park	Prison	Solid Waste Disposal	Transportation - Bus Hub	Bridges
College/School	E911 Dispatch	Hospital	Other	Recreation Resources	Special Population Housing	Transportation - Train Hub	Dams
DPW	Emergency Ops Center	Housing Location	Police	Sewage Pump Station	Telecommunication Tower	Waste Water Treatment Plant	Evacuation Routes
Elderly Housing	Emergency Shelter	Library	Post Office	Shopping Center	Transportation - Air Hub	Water System Resources	

*Data Sources: The data for this map was supplied by the Merrimack Valley Planning Commission, the National Oceanic and Atmospheric Administration, the Massachusetts Department of Conservation and Recreation, the Executive Office of Environmental Affairs/MassGIS (EOEA/MassGIS), and the municipalities. Data were provided through the ResilientMA Climate Clearinghouse and the NOAA Digital Coast Data Hub. The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition or regulatory interpretation.

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APPENDIX C. Hazard Mitigation Module Templates

2024 Hazard Mitigation Plan



Module 1: Convening a Local Hazard Mitigation Planning Team

Overview: Please use the steps outlined in the module below to reconvene your Local Hazard Mitigation Planning Team. Once your team has been formed, return this completed module to Hanna Mogensen, (hmogensen@mvpc.org) and Cece Gerstenbacher (cgerstenbacher@mvpc.org) at MVPC by **Friday, January 13th, 2023**. If you could use support in completing this module, don't hesitate to reach out to us using the same e-mails above and we would be happy to assist you.

During the Hazard Mitigation Planning process it is valuable to have collaboration among various sectors to ensure that mitigation capabilities continue to grow and that comprehensive mitigation includes strategies for all community sectors. As you decide who should be on your Local Hazard Mitigation Planning Team (LHMPT), the worksheet below will help to guide you in considering representatives from a broad range of departments/sectors.

When developing your 2023 LHMPT, it is useful to reference participants of previous related planning efforts. Please see the accompany resource (Module 1. Planning Team Reference List) for a comprehensive list of individuals that served on your **2016 Local Hazard Mitigation Planning Team**, and a list of individuals involved in your most recent **Municipal Vulnerability Planning** process. We encourage you to also consider similar groups your community may already have in place such as a Resiliency Committee when developing your LHMPT.

Selecting a Lead Representative

Before we assemble the team, we need to identify one person from your community to act as the Lead Representative. In this role, the Lead Representative will act as the point person for

- (a) communicating with Merrimack Valley Planning Commission;
- (b) distributing information and convening other local hazard mitigation team members;
- (c) organizing and coordinating action items, documentation, and information needed to advance the Hazard Mitigation Planning process.

Name of Lead Representative: _____

Title and Affiliation: _____

Town/City: _____

Contact information (Ph): _____ / **(Email):** _____

Please describe in 1-2 sentences how and why the Lead Representative was selected:

Selecting a Local Hazard Mitigation Planning Team:

Instructions: Use the table below to identify representatives from your municipality and/or partner organizations who will be members of your **Local Hazard Mitigation Planning Team**. For each organization on the general list below, determine if the group will be represented on your LHMPPT (by denoting a Y or N in the “Planning Team” column). For selected groups, identify the specific individual who will serve, and provide their contact information. *Please note that some organizations do not need to be represented directly on your Local Planning Team but instead can be stakeholders that you reach out to and involve at key points in the planning process.* We recommend Local Planning Teams are made up of 5-10 individuals from your community.

Definitions:

- **Planning Team** – The core group responsible for making decisions, guiding the planning process, and agreeing upon the final contents of the plan.
- **Stakeholders** – Individuals or groups that affect or can be affected by a mitigation action or policy and can be consulted and invited to participate at key points in the process to share input or knowledge.

Organization	Planning Team	Individual(s) on Team	Individual(s) Contact Information
Local Agencies	(Y/N)	Full name	Email
Building Code Enforcement			
City Management/County Administration			
Emergency Management			
Fire Department/District			
Floodplain Administration			
Geographic Information Systems			
Parks and Recreation			
Planning/Community Development			
Public Works			
Conservation Agent/Commission			
Stormwater Management			
Transportation (Roads and Bridges)			

City Council/Board of Selectmen			
City/Town Planners/Planning Commission			
Regional/Metropolitan Planning Organization(s)			
City/Town Attorney's Office			
Economic Development Agency			
Local Emergency Planning Committee			
Police/Sheriff's Department			
Sanitation Department			
Public Health Department			
Tax Assessor's Office			
Special Districts and Authorities			
Airport, Seaport Authorities			
Fire Control District			
Flood Control District			
School District(s)			
Transit Authority			
Utility Districts			
Non-Governmental Organizations			
American Red Cross			
Chamber of Commerce			
Community/Faith-Based Organizations			
Environmental Organizations			
Homeowners Associations			
Neighborhood/Community Organizations			
Utility Companies			
State Agencies			
State Emergency Management Agency			
State Dam Safety			
State Department of Transportation			
State Fire and Forestry Agency			
State Geological Survey			
State Water Resources Agency			
State National Flood Insurance Program Coordinator			

State Planning Office			
Federal Agencies			
Federal Emergency Management Agency			
Land Management Agencies (USFS/NPS/BLM)			
National Weather Service			
US Army Corps of Engineers			
US Department of Housing and Urban Development			
US Department of Transportation			
US Environmental Protection Agency			
US Geological Survey			
Other (please feel free to add to this category)			
Tribal Officials			
Colleges/Universities			
Land Developers and Real Estate Agencies			
Major Employers and Businesses			
Professional Associations			
Neighboring Jurisdictions			
Elected Officials			
MVP Representatives			

Adapted from FEMA's Local Mitigation Planning Handbook

Describe your Process: Please briefly describe (2-4 sentences) your process for reaching out to and selecting individuals to serve on the Hazard Mitigation Planning Committee. Who did you reach out to, which groups/areas of expertise is represent, how did you ensure broad representation?

Optional Outreach Template

Please feel free to use/modify this outreach template to engage potential LHMPT members.

Dear _____,

____(Town/City)_____ is preparing to update our Hazard Mitigation Plan in association with Merrimack Valley Planning Commission and other communities in the region. Hazard Mitigation Plans (HMPs) are comprehensive plans that identify natural disaster risk and lay out long-term strategies to minimize that risk and reduce vulnerability for people and property. To maintain a compliant plan, the Federal Emergency Management Agency (FEMA) requires communities to update their Hazard Mitigation Plans every 5 years. With our last update conducted in 2016, it is time for us to engage in this process again.

We are reaching out to you because we have identified your ____(organization/department/agency)____ as having critical knowledge and expertise pertaining to hazard mitigation planning. To ensure we have a dynamic group of individuals working on this update, we would like to invite you to serve as a member of our Local Hazard Mitigation Planning Team. In this role, you would work with other members of the planning team to spearhead the HMP update for our community. This would involve attending semi-regular meetings over the next 18 months to gather information, review data, convene stakeholders, develop goals and strategies, review draft plans, and help to coordinate local adoption of the updated plan. For more information on the hazard Mitigation Plan update process and the role of a Local Hazard Mitigation Planning Team member, you can [click here](#).

Thank you for considering serving on ____ (Town/City's)_____ Local Hazard Mitigation Planning Team. Please reach out via phone or e-mail if you have any questions or would like to talk more about this opportunity. As we will be looking to kick off this process in January 2023, we ask that you let us know your availability to participate by ____ (recommend setting date 1 week after sending email)_____.

Many thanks for your consideration,



2024 Hazard Mitigation Plan

Module 2: Engagement Planning

 1. Convene Local Hazard Mitigation Planning Team		
Engagement	Task Goals	Timeline
 LHMPT	<ul style="list-style-type: none"> Determine members of LHMPT Establish Lead Representative 	January 2023

 2. Identify Natural Hazards		
Engagement	Task Goals	Timeline
 LHMPT	<ul style="list-style-type: none"> Determine engagement plan Discuss match tracking Update natural hazards (location, extent, previous occurrences, future probability, vulnerability, impacts) 	MVPC hosts small regional workshops with LHMPTs February 2023

 3. Update Critical Facilities List (Community Lifelines)		
Engagement	Task Goals	Timeline
 LHMPT  Stakeholders	<ul style="list-style-type: none"> Review and update 2016 list and map of critical facilities (add, remove, and confirm) Provide updated community information around community partners, land-use changes, growth, demographics, and development 	Individual LHMPTs complete task with stakeholders May 2023
Stakeholder Engagement <i>Use the list on page 6 to consider stakeholders to engage for this task</i>	<ul style="list-style-type: none"> 	

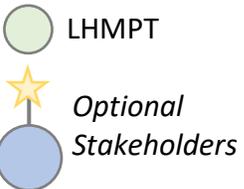


4. Complete Vulnerability Profile

Engagement	Task Goals	Timeline
 <p>LHMPT Stakeholders</p>	<ul style="list-style-type: none"> Review community-specific vulnerability assessment developed by MVPC (overlay of hazards and lifelines) Develop problem statements around hazards and assets Identify needed improvements 	<p>MVPC meets individually with each LHMPT and identified stakeholders</p> <p>September 2023</p>
<p>Stakeholder Engagement</p> <p><i>Use the list on page 6 to consider stakeholders to engage for this task</i></p>	<ul style="list-style-type: none"> 	



5. Set Hazard Mitigation Goals

Engagement	Task Goals	Timeline
 <p>LHMPT <i>Optional</i> Stakeholders</p>	<ul style="list-style-type: none"> Review actions from 2016 plan Identify progress from 2016 plan Develop mitigation goals based on updated assessment Establish a comprehensive range of actions/projects to address mitigation goals Select targeted actions/projects and outline steps Identify existing resources to support actions 	<p>MVPC hosts small regional workshops with LHMPTs</p> <p>November 2023</p>



6. Develop a Mitigation Action Plan

Engagement	Task Goals	Timeline
 <p>LHMPT Stakeholders</p>	<ul style="list-style-type: none"> • Develop a list of priority hazard mitigation projects • Describe criteria for prioritization • Identify who is responsible for each action, potential funding sources, and expected timeframe 	<p>Individual LHMPTs complete task with stakeholders</p> <p>January 2024</p>
<p>Stakeholder Engagement</p> <p><i>Use the list on page 6 to consider stakeholders to engage for this task</i></p>	<ul style="list-style-type: none"> • • • • • 	



7. Establish a Maintenance Plan

Engagement	Task Goals	Timeline
 <p>LHMPT Stakeholders</p>	<ul style="list-style-type: none"> • Create a detailed plan to achieve projects • Establish monitoring efforts and documentation systems to track progress • Establish an evaluation plan • Establish a plan to update HMP within 5 years 	<p>Individual LHMPTs complete task with stakeholders</p> <p>February 2024</p>
<p>Stakeholder Engagement</p> <p><i>Use the list on page 6 to consider stakeholders to engage for this task</i></p>	<ul style="list-style-type: none"> • • • • • 	



8. Conduct a Plan Review

Engagement	Task Goals	Timeline
 LHMPT  Stakeholders  Public	<ul style="list-style-type: none"> • Hold public listening session to gain feedback on draft plan • Host public comment period • Incorporate feedback into updated draft 	Each Community hosts public listening sessions May 2024
Stakeholder Engagement <i>Use the list on page 6 to consider stakeholders to engage for this task</i>	<ul style="list-style-type: none"> • • • • 	
Public Engagement <i>Use the space to the right to consider how to share this opportunity broadly within your community and any groups to engage specifically</i>	<ul style="list-style-type: none"> • • • • 	



9. Finalize and Submit Plan

Engagement	Task Goals	Timeline
 LHMPT	<ul style="list-style-type: none"> • Finalize plan and complete FEMA review tool for submission • Incorporate feedback from MEMA and FEMA and resubmit for APA 	MVPC Completes in coordination with LHMPTs July 2024



10. Adopt Finalized Plan

Engagement	Task Goals	Timeline
<p>LHMPT Stakeholders Public</p>	<ul style="list-style-type: none"> • Hold second public meeting to adopt plan • City Council/Select Board adopts plan • Send final copy to FEMA/MEMA and all participating communities 	<p>Each Community will host meeting to formally adopt plan</p> <p>September 2024</p>
<p>Stakeholder Engagement</p> <p><i>Use the list on page 6 to consider stakeholders to engage for this task</i></p>	<ul style="list-style-type: none"> • • • • 	
<p>Public Engagement</p> <p><i>Use the space to the right to consider how to share this opportunity broadly within your community and any groups to engage specifically</i></p>	<ul style="list-style-type: none"> • • • • 	

Potential Stakeholder List	
Local Agencies	State Agencies
Building Code Enforcement	State Emergency Management Agency
City Management/County Administration	State Dam Safety
Emergency Management	State Department of Transportation
Fire Department/District	State Fire and Forestry Agency
Floodplain Administration	State Geological Survey
Geographic Information Systems	State Water Resources Agency
Parks and Recreation	State National Flood Insurance Program Coordinator
Planning/Community Development	State Planning Office
Public Works	Federal Agencies
Conservation Agent/Commission	Federal Emergency Management Agency
Stormwater Management	Land Management Agencies (USFS/NPS/BLM)
Transportation (Roads and Bridges)	National Weather Service
City Council/Board of Selectmen	US Army Corps of Engineers
City/Town Planners/Planning Commission	US Department of Housing and Urban Development
Regional/Metropolitan Planning Organization(s)	US Department of Transportation
City/Town Attorney's Office	US Environmental Protection Agency
Economic Development Agency	US Geological Survey
Local Emergency Planning Committee	Other (please feel free to add to this category)
Police/Sheriff's Department	Tribal Officials
Sanitation Department	Colleges/Universities
Public Health Department	Land Developers and Real Estate Agencies
Tax Assessor's Office	Major Employers and Businesses
Special Districts and Authorities	Professional Associations
Airport, Seaport Authorities	Neighboring Jurisdictions
Fire Control District	Elected Officials
Flood Control District	MVP Representatives
School District(s)	
Transit Authority	
Utility Districts	
Non-Governmental Organizations	
American Red Cross	
Chamber of Commerce	
Community/Faith-Based Organizations	
Environmental Organizations	
Homeowners Associations	
Neighborhood/Community Organizations	
Utility Companies	

2024 Hazard Mitigation Plan

Module 2: Natural Hazard Assessment



Terms of Reference

Local Risk: The potential impact this hazard has or could have on your municipality.

Does this hazard occur in your community?

Respond: Yes or No *If you answer “No” skip to last column “Future Probability”

Area of Impact: The area of potential impact within the region in which the hazard occurs.

Please indicate to what extent this hazard occurs in your community.

Respond: Negligible: Less than 10% of planning area or isolated single-point occurrences; **Limited:** 10-25% of the planning area or limited single-point occurrences; **Significant:** 25-75% of planning area or frequent single-point occurrences; **Extensive:** 75-100% of planning area or consistent single-point occurrences. You can also list specific locations within your community.

Previous Occurrence: How often the hazard has occurred in your community.

Please indicate how frequently this hazard has occurred in the past.

Respond: Rarely: Has occurred once in last 100 years, **Occasionally:** has occurred once every 10-99 years, **Often:** Has occurred once every ten years, **Very Often:** Has occurred every year.

Severity/Extent: The extent or magnitude of a hazard, as measured against an established indicator (e.g., Richter Scale, Saffir-Simpson Hurricane Scale, or Regional Snowfall Index).

Please indicate the severity/extent this hazard occurs in your community.

Respond: Weak: Limited classification on scientific scale, slow speed of onset or short duration of event, resulting in little to no damage, **Moderate:** Moderate classification on scientific scale, moderate speed of onset or moderate duration of event, resulting in some damage and loss of services for days, **Severe:** Severe classification on scientific scale, fast speed of onset or long event duration, resulting in devastating damage and loss of services for weeks/months, **Extreme:** Extreme classification on scientific scale, immediate onset or extended event duration, resulting in catastrophic damage/ uninhabitable conditions.

Hazard	Scale / Index	Weak	Moderate	Severe	Extreme
Drought	Palmer Drought Severity Index ³	-1.99 to +1.99	-2.00 to -2.99	-3.00 to -3.99	-4.00 and below
Earthquake	Modified Mercalli Scale ⁴	I to IV	V to VII	VII	IX to XII
	Richter Magnitude ⁵	2, 3	4, 5	6	7, 8
Hurricane Wind	Saffir-Simpson Hurricane Wind Scale ⁶	1	2	3	4, 5
Tornado	Fujita Tornado Damage Scale ⁷	F0	F1, F2	F3	F4, F5

Future Probability: The likelihood of this hazard occurring in your community in the future.

Please indicate the probability of future occurrence in your community.

Respond: Unlikely: Likely to occur once every 100 years or more, **Occasional:** Likely to occur once every 10-100 years, **Likely:** Likely to occur once every 10 years, **Highly Likely:** Likely to occur once every year.

Part 1. Assessing Natural Hazards within your Community

Use the table below to identify natural hazards in your community. Before completing, review the **Terms of Reference** above, which define each term within the table: Local Risk, Location, Previous Occurrences, Severity/Extent, Future Probability.

Natural Hazard Assessment Worksheet

Natural Hazard	Local Risk (Y/N)	Location	Previous Occurrences	Severity/Extent	Future Probability
Changes in Precipitation					
Inland Flooding					
Riverine Erosion					
Drought					
Landslide					
Sea Level Rise					
Coastal Flooding					
Coastal Erosion					
Tsunami					
Earthquake					
Rising Temperatures					
Extreme Temperatures					
Wildfires					
Invasive Species					

Natural Hazard	Local Risk (Y/N)	Location	Previous Occurrences	Severity/Extent	Future Probability
Extreme Weather					
Hurricane/Tropical Storm					
Severe Winter Storms (nor'easter/ice storms)					
Tornadoes					
Other Severe Weather (high winds/ thunderstorm)					
Other					

Part 2. Assessing Overall Risk

Overall Risk is the cumulative risk that a certain hazard poses to your community.

Based on the following attributes described, please rate the overall risk of this hazard on your community.

Respond:

- **Low:** Two or more criteria fall in lower classifications or the event has a minimal impact on the planning area. *This rating is sometimes used for hazards with a minimal or unknown record of occurrences or for hazards with minimal mitigation potential.*
- **Moderate:** The criteria fall mostly in the middle ranges of classifications and the event’s impacts on the planning area are noticeable but not devastating. *This rating is sometimes used for hazards with a high extent rating but very low probability rating.*
- **High:** The criteria consistently fall in the high classifications and the event is *likely/highly likely to occur with severe/extreme strength over a significant/extensive portion* of the planning area.

Natural Hazard	Community Risk Rating
Inland Flooding	
Drought	
Landslide	
Coastal Flooding	
Erosion (specify Coastal or Riverine)	
Tsunami	
Earthquake	
Extreme Temperatures	
Wildfires	
Invasive Species	
Hurricane/Tropical Storm	
Severe Winter Storms	
Tornadoes	
High Winds/ Thunderstorms	

Part 3. Documenting Occurrences in Your Community (electronic survey)

Following this workshop, LHMPTs will be e-mailed a brief survey to identify specific examples and acute occurrences of natural hazards in your community. Please complete this survey to provide additional local information regarding hazard events in your community.

2024 Hazard Mitigation Plan

Module 3: Identifying Community Lifelines

Community Name:

The next step of the Hazard Mitigation Process is identifying your community's lifelines, or the critical infrastructure, resources, and services that enable daily operation. Using the 2016 HMP, and integrating new categories as needed, we have outlined data pertaining to your community's lifelines (Tab 1 and Tab 2). As a LHMPT, please review each data table below and input information as prompted. The link to this document is sharable, so please feel free to circulate to other individuals outside of your LHMPT as needed. Remember, as a shareable document, anyone can edit and change data so please be mindful of other folks' contributions.



Education

Review information below. Add information into green column for 2023. Include additional fields at bottom of table if there is more information for this topic you would like to share.

	2016	2023
Number of Elementary Schools		
Number of High Schools		
Number of enrolled students		

Utilities

Review information below. Add information into green column for 2023. Include additional fields at bottom of table if there is more information for this topic you would like to share.

	2016	2023
Electricity		
Gas		
Drinking Water (private/public)		
Drinking Water Source		
Wastewater System (private/public)		

Emergency Response Capacity

Review information below. Add information into green column for 2023. Include additional fields at bottom of table if there is more information for this topic you would like to share.

	2016	2023
Fire Personnel (# FT/ #PT)		
Police Personnel (#FT/#PT)		
Water Department		

Dedicated EM Committees/groups

Review information below. Add information into green column for 2023. Include additional fields at bottom of table if there is more information for this topic you would like to share.

	2016	2023
Emergency Management Committee (Y/N, details)		
Municipal Vulnerability Committee (Y/N, details)		
Emergency Alert System (Y/N, details)		
Equipment (Y/N, details)		

Community Plans

Complete the table below by adding information for each of your community's major plans. Include additional relevant plans at the bottom.

Plan	Year Last Updated	Status/ Comment	Link
Master Plan			
Open Space and Recreation Plan			
Comprehensive Emergency Management Plan			
Municipal Vulnerability Plan			

Zoning Changes				
Please review the changes in zoning since 2016 listed below, and add information or make changes as needed.				
Zoning Change (base or overlay)	Zone/Overlay Name	Acres	Year Updated	Additional information/comments

Major Development since 2016 (completed or in the planning, permitting, or construction phase)						
Review the list of developments below that were included in your 2016 plan. Add missing information if available, and complete 2023 status (last column). Add new entries at the bottom of the table as needed.						
Facility Type	Common Name	Street Address	Sq Feet	Total Housing Units	2016 Status	2023 Status

Newly Conserved or Preserved Land since 2016 (completed or in planning, permitting, or designation phase)					
Please fill in table below with any newly conserved or preserved land since 2016.					
Property Name	Relative Location (parcel/address)	Size (area)	Current Status	Year completed/projected	Comments

Bridges									
Please review the list of bridges in your community and make edits/changes as needed paying particular attention to details in green cells. If any bridges are not accounted for, add them in at bottom of table. If any bridges have been removed, please strike out row and add comment in last column.									
ID	Feature Intersected	Owner	Latitude	Longitude	Year Built	Last date improved	Structurally Deficient	Last Inspection Date	Additional Comments

Dams						
Please review the list of dams in your community and make additions/changes as needed, paying particular attention to details in green cells. If any dams are not accounted for, add them in at bottom of table. If any dams have been removed please strike out row and add comment in last column.						
Name	Ownership	Year Completed	Last date improved	Hazard Class	Last Inspection Date	Additional Comment/ Status

Flood Prone Areas in your community		
Review the flood-prone locations identified in your 2016 plan. Complete chart by adding details to last two columns. Include more locations at bottom of table as needed.		
Description of Location	Please add any specific locations/ details	Please describe challenges caused

Miscellaneous Optional Data		
If you would like to provide any additional relevant data to be included in the HMP, please do so below. This is an optional category.		
Data	2023	Comments



2024 Regional Hazard Mitigation Plan

Module 4: Assessing Local Vulnerability

Part I: Review Draft Community Profile

Instructions: Please review your draft Community Profile with your LHMPT. As part of this review, be sure to address each of the bullets below.

- Review all text for accuracy and completeness
- Review all tables for accuracy and completeness
- Address highlighted portions that need attention
- Identify any additional information or content that is important to include (e.g. problems or current projects you will be looking for financial assistance for)

For small changes, please identify one person to make red-line edits directly on your hard copy. For larger structural changes, please use the table below.

Page No.	Modification <i>(addition, deletion, change)</i>	Comment/Information

Part II: Review Composite Hazard Maps

Instructions: Please walk through the following steps as a LHMPT to review your Composite Hazard Maps.

Map 1: Current Hazard Conditions Map

- Of the six hazard types identified (Temperature, Earthquakes, Tornadoes, Hurricanes, Flooding, and Landslides/Slope Stability) review each one, and identify in what areas of your community each hazard is occurring.
- Compare the six hazards and identify which one(s) pose the greatest threat to your community based on their extent/location.
 -
 -

Map 2: Current Composite Hazard Conditions Map

- Identify what areas of your community have “High” or “Critical” hazard scores. List those general areas below:
 -
 -
 -
 -
- Review the critical facilities located within Critical, and High Hazard Zones. List total counts below for each category.
 - Number of critical facilities within Critical Hazard Zones: _____
 - Number of critical facilities within High Hazard Zones: _____
- For the Critical and High hazard zones, can you identify any specific facilities that stand out to you? Is there any additional information you can share on these facilities (past loss or risk, current work to address impacts)?

Map 3: Future Hazard Conditions

- Review the hazards included in the Future Projections map (flooding, precipitation, consecutive dry days, average temperature). Do any stand out to you as particularly impactful to our region?
- What areas of your community will be at greater risk due to future projected climate changes?
- Are there any critical facilities that are projected to be impacted that stand out to you?

Part III: Developing Challenge Statements

Background: The first step in identifying *solutions* to address risks from natural hazards is to develop **challenge statements**. Challenge statements identify the hazard, lay out the problem occurring, and acknowledge the vulnerability or risk. For example: “The North Creek Sewage Treatment Plant is located in the 100-year floodplain and has been damaged by past flood events. It plays a critical role in serving 10,000 residential and commercial properties.”

Instructions: Review the full list of natural hazards that can occur within Massachusetts and identify those that are a top concern for your community (see Natural Hazard Risk Table on last page of draft community profile). For each natural hazard you identify, develop 1-3 challenge statements based on the impacts you are experiencing/ expect to experience in your community.

Challenge Statements (*remember to first identify the: natural hazard, problem, vulnerability/risk*)

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

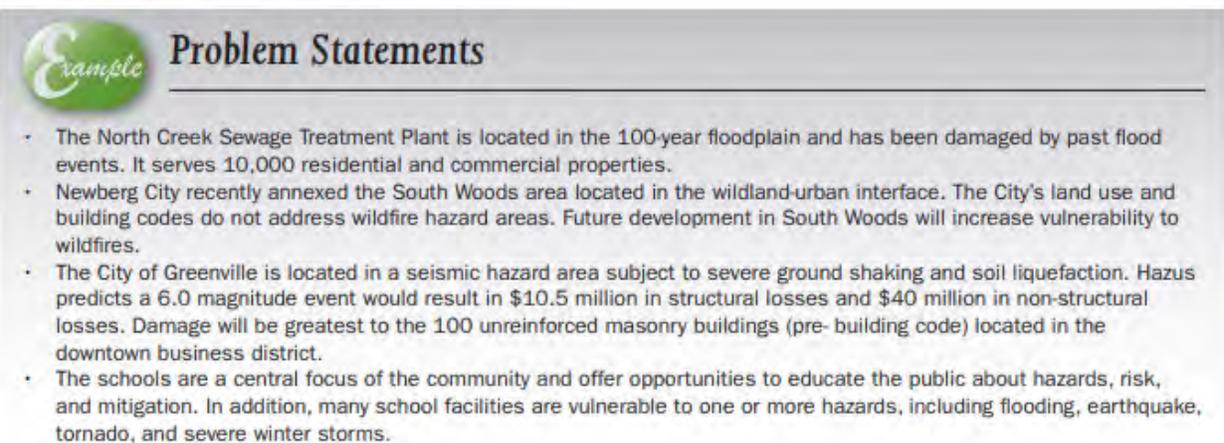
Reference Sheet

Natural Hazards: Flooding (inland and or coastal), Drought, Landslides, Erosion (coastal or riverine), Tsunami, Earthquake, Extreme Temperatures, Wildfires, Invasive species, Hurricane/ Tropical Storm, Severe winter storms, Tornadoes, Other.

Example Problems: Damage to homes, business, other structures; restricted access to critical services (medical, food, shelter); limited access to places within the community; loss of critical habitat (wetlands, forest); increased development/impervious surfaces; damage to key infrastructure (power, sewer, etc.); contaminated water/food sources; damage to communication infrastructure (cellular, internet).

Example Vulnerability/Risk: risk to public health, risk to safety, risk to property, risk to nature and natural systems; risk to culture and community, risk to economic resources.

FEMA- Example Challenge Statements



The graphic features a green circular icon with the word "Example" in white script. To its right, the title "Problem Statements" is written in a bold, dark serif font. Below the title is a horizontal line, followed by a bulleted list of four challenge statements.

Example Problem Statements

- The North Creek Sewage Treatment Plant is located in the 100-year floodplain and has been damaged by past flood events. It serves 10,000 residential and commercial properties.
- Newberg City recently annexed the South Woods area located in the wildland-urban interface. The City's land use and building codes do not address wildfire hazard areas. Future development in South Woods will increase vulnerability to wildfires.
- The City of Greenville is located in a seismic hazard area subject to severe ground shaking and soil liquefaction. Hazus predicts a 6.0 magnitude event would result in \$10.5 million in structural losses and \$40 million in non-structural losses. Damage will be greatest to the 100 unreinforced masonry buildings (pre- building code) located in the downtown business district.
- The schools are a central focus of the community and offer opportunities to educate the public about hazards, risk, and mitigation. In addition, many school facilities are vulnerable to one or more hazards, including flooding, earthquake, tornado, and severe winter storms.



2024 Hazard Mitigation Plan

Module 5: Mitigation Action Plans

Instructions: With a comprehensive list of Challenge Statements, we now turn our attention to developing mitigation action plans to address these challenges and reduce risk in the face of natural hazards. Mitigation Action Plans do *not* have to be all encompassing, rather they should highlight priorities and needs your community is interested in advancing over the next five years (2024-2029). Remember to highlight projects you hope to leverage resources to complete. **Please follow the steps below to update your mitigation action plan:**

- 1. Review your “Mitigation Action Plan” Matrix (11x17 paper). This matrix was pulled from the 2016 plan.
 - a. Complete the last two columns for all 2016 actions: (1) provide a brief update for the action by describing major accomplishments/progress; and (2) determine the current project status for the 2024 plan by selecting: completed, drop, or include
 - b. Update any other information for the 2016 actions if needed

- 2. Use space at end of the matrix to add in new mitigation goals. As part of your consideration, please:
 - a. Review Challenge Statements to ensure top challenges are addressed
 - b. Review Recommended Priority Actions outlined in your Municipal Vulnerability Plan (attached)
 - c. Consider high hazard dams, structurally deficient bridges, and community lifelines within floodplains (attached)
 - d. Review Reference Categories to consider (attached)
 - e. Consider goals in other Community plans (OSRP, Master Plan, etc.)

Next Steps: Following Module 5, LHMPTs will work to prioritize their list of mitigation actions, and create maintenance plans to ensure they are achieved. Please stay tuned for next steps in January.

Community Mitigation Action Plan 2024

Category of Action <i>(Planning, Structural, Nature Based Solutions, Education)</i>	Description of Action	Hazard Addressed	Implementation Responsibility	Priority <i>(high, medium, low-based on cost: benefit, feasibility, and need)</i>	Timeframe <i>(short-term <2yrs, medium 3-4yrs, long 5yrs)</i>	Cost <i>(low<\$50k, Moderate \$50-250k, High >\$250k)</i>	Resources/ Funding <i>(Please specify funding agency or group who will support action)</i>	Year Added	2016 Project Status	2023 Project Status Update <i>(brief description of progress/ accomplishments)</i>	Include in 2023 Plan? <i>(completed, drop, or include)</i>

2024 Hazard Mitigation Plan

Module 6: Establishing a Maintenance Plan



Module 6: Establishing a Maintenance Plan

Once the HMP has been updated, FEMA requires that communities put plans in place to ensure continued community engagement, as well as timely evaluation, monitoring, and updating of the plan. Below we have included general language/suggestions to ensure compliance with these requirements, and places for you to specify how your community will engage in these actions.

Continued Public Participation

Instructions: Below is standard text which complies the FEMA/MEMA requirements around continued public participation. Please review the text below. If anything included within the standard text is not possible for your community, please make edits by highlighting all changes in **red text**.

Standard Text: The public will be given opportunities to be involved in the plan maintenance and update process. The approved/updated plan will be posted to the MVPC website as well as each community's website. Residents, businesses, and other vested groups will be notified when updates and reports are available, and when significant hazard mitigation issues are brought before the City Council or Board of Selectmen using normal meeting protocols. Notification will be done through posting of meeting agendas in City/Town Hall and on each community's website. The public will also be included in the preparation of the five-year update using the same public participation process for the development of this plan update.

Instructions: Please look back at your mitigation actions listed on tab 1 of this workbook and identify 3 or more ways the public may be involved in some of these actions. List these ways below and identify the action they correspond to. If more lines are needed, please insert them below.

EXAMPLE: Action:	
1. Action:	Opportunity for public engagement
2. Action:	Opportunity for public engagement
3. Action:	Opportunity for public engagement
<i>Add additional rows as needed below</i>	

Monitoring and Evaluation

Instructions: Below is standard text which complies the FEMA/MEMA requirements around monitoring and evaluation of your Mitigation Action Plans. Please review the text below. If anything included within the standard text is not possible for your community, please make edits by highlighting all changes in **red text**.

Standard Text: The measure of success for the Regional Multi-Hazard Mitigation Plan Update will be the progress made on the identified mitigation actions implemented. In order for the region and its communities to become more disaster resilient and better equipped to respond to natural hazards, there must be a coordinated effort between elected officials, appointed bodies, municipal staff, regional and state agencies, other vested groups, and the general public. Thus, monitoring, evaluating, and updating the hazard mitigation plan are critically important steps to maintaining a viable, effective plan. A review of the plan will be completed annually by each community's Lead Representative and or LHMPT through the completion of an annual survey assessing progress on identified mitigation actions and evaluating the plan's effectiveness (see example survey on Tab 3). Findings from the survey will be shared in the form of a report with members of the LHMPT and each community's governing body. Survey results will also be compiled by MVPC and used to inform the formal evaluation, which will be undertaken every five years in accordance with the Disaster Mitigation Act of 2000.

If you prefer someone other than your Lead Representative completes the annual progress survey, please identify a new person for this role in the box to the right -->

Who from your LHMPT will share the annual report (provided by MVPC) with your community's governing body? Please list that person's name in the box to the right -->

Plan Review

Instructions: Below is standard text which complies the FEMA/MEMA requirements around plan review (required every 5 years). Please review the text below. If anything included within the standard text is not possible for your community, please make edits by highlighting all changes in **red text**.

Standard Text: The Regional Hazard Mitigation Plan will be reviewed and revised to reflect progress in local mitigation efforts and changes in priorities, and resubmitted for approval within 5 years in order to continue to be eligible for mitigation project grant funding. Annual surveys will provide insight and relevant content that will be used to inform the plan update. The Plan will be evaluated and updated prior to the next scheduled five-year update as needs and funding opportunities arise. Similar steps will be followed to initiate the update process, through coordinating with the Chief Elected Official and re-engaging Lead Representatives and LHMPTs.

Hazard Mitigation Planning - Progress Report Form

DO NOT COMPLETE THIS SECTION - This is an example of the Annual Progress Reporting form that will be circulated annually as an online survey. The first annual report will be expected in Fall of 2025.

Progress Report Period	From Date:		To Date:
Person(s) Completing survey	Names:		

Identified Actions	Responsible Agency	Project Status	Additional Information
Actions your LHMPT identified in your 2024 HMP	Identified person/ group to advance this action	Please select from the drop-down options provided	If you selected "Project Delayed" or "Project Canceled" please briefly explain
Action 1 Action 2 Action 3			

Summary of Project progress for this reporting period

Question 1: Reflect on your actions identified above, what was accomplished during this reporting period?
Response:

Question 2: What major obstacles, problems, or delays did your community encounter in advancing your Mitigation Action Plan?
Response:

Question 3: Are there any major changes to your Mitigation Action Plan that you anticipate needing to make?
Response:

Question 4: Any other comments to share?
Response: